THE ANCIENT ART OF WAR AT SEA™

by Dave Murry
and Barry Murry

Broderbund®

THE ANCIENT ART OF WAR AT SEA™

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THE ANCIENT ART OF WAR AT SEA™

Programming: Dave Murry and Barry Murry
Manual by: Dave Murry and Barry Murry
Additional Research: Alex Hoag
Product Manager: Edward Badasov

ABOUT THE AUTHORS

The Ancient Art of War at Sea and its predecessor, The Ancient Art of War®, were both designed, researched and programmed by Dave Murry and Barry Murry and published by Brøderbund Software. Comments to the authors can be sent to: EVRYWARE, DEPT WSI, Box 5204, Olympia, WA 98503.

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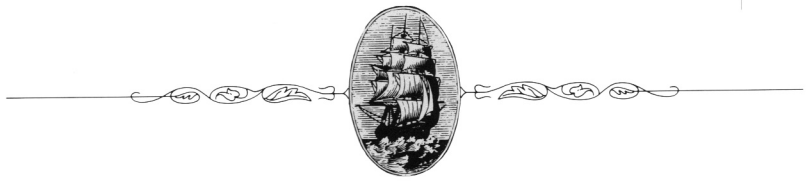

Book I

INSTRUCTION MANUAL

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NTRODUCTION

Book I is an Instruction Manual that will take you step-by-step through every aspect of playing The Ancient Art of War at Sea. It is divided into four sections.

"Getting Started" tells you how to start up the program.

"A Training Session — Prepare For War!" quickly guides you through the program's main features and leads you into your first campaign. Use this section as a tutorial for getting acquainted with the game play, commands and controls.

"Ye Olde Options Shoppe" explains how you can customize the game to your system and adjust the game play.

The "Game Generator" section shows you how to make up your own campaigns, quickly and easily. You'll learn how to build every element of a campaign.

After you are familiar with how the game works, refer to Books II, III and IV for further information and playing tips. Book II is a Planning Guide to improve your strategic and tactical skills. Book III contains historical information about famous sea battles. Book IV describes the campaigns and includes a Reference Glossary.

ETTING STARTED

This chapter will help you set up the game and teach you how to operate it.

WHAT YOU WILL NEED

IBM PC, PC XT, PC AT or 100% compatible, with at least 256K memory.
Color graphics adapter card, Hercules monochrome graphics adapter card, or EGA graphics card in CGA mode.
Color or monochrome monitor.
MS DOS or PC DOS 2.0 or higher.
Joystick (optional).
At least one formatted blank disk (optional).

TO START

First, start up your computer using DOS. When you see the A> prompt, remove the DOS disk and replace it with the game disk. Type **WAS** then press **Enter** (or ↵). (If you are using a Hercules monochrome graphics adapter or Hercules-compatible graphics adapter, type **WAS HERC** when you see the A> prompt, then press **Enter** or ↵.)

After a moment, you will see the title page. On the sail will be the phrase "GO TO WAR." You can use the + and – keys to view the other options which are "MAKE CHANGES" and "QUIT." If you don't do anything for 30 seconds, the game will begin a self-playing demo, which you can watch to get an idea of the game play. Press any key to exit the demo and go back to the title page.

Command Options: Throughout The Ancient Art of War at Sea, you will see command options on the bottom line of the screen. To select an option, press the letter key that corresponds to the first letter of the command. For example, to use Zoom, press **Z**.

Joystick instructions are on the Quick Reference Card.

Before you start playing your first game, you should visit Ye Olde Options Shoppe to customize the program to your system. Press + or – until "MAKE CHANGES" appears on the sail, then press **Enter**. You will see the Changes Page. Using the + or – key, move the cursor (the flashing frame) to the picture in the lower right corner of the screen ("YE OLDE OPTIONS SHOPPE" will appear at the top of the screen). Press **Enter**.

The first four options are used to adjust the game play. These options are now set to make learning the game easier. So we suggest you don't change these until later when you are familiar with the game.

For now, look at the last five options and decide if you want to change any of them. To change an option, use + or – until the sabre points to that option, then press the **Space bar**. Directions also appear at the bottom of the screen (when appropriate).

Joystick: If you want to use a joystick, move the sabre to the line that says "Do not use joystick" and press the **Space bar**. Then, follow the instructions at the bottom of the screen.

As soon as you have these set up the way you like them, you're ready to play your first campaign! Press **Enter** to go back to the title page. Have Fun!

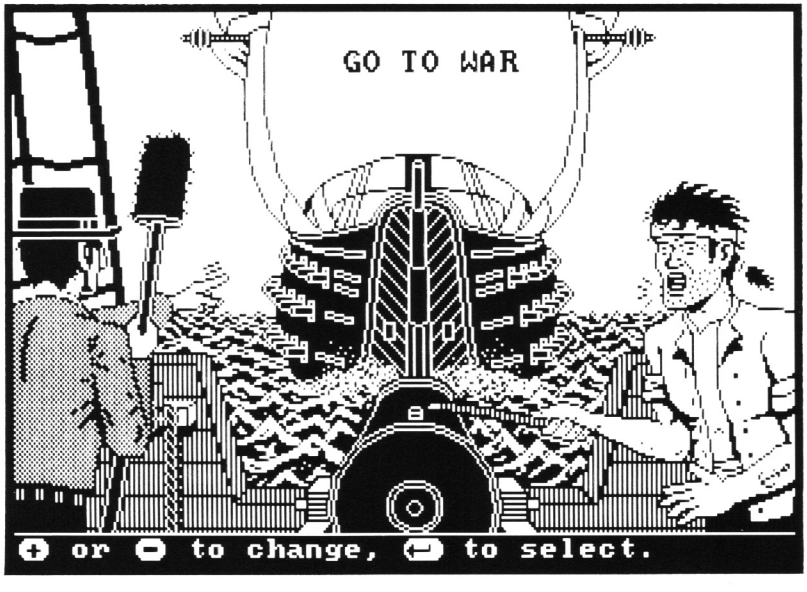
TRAINING SESSION: PREPARE FOR WAR!

This section leads you through your first campaign. In the process, you will learn about the controls and commands used in The Ancient Art of War at Sea.

CHOOSING A CAMPAIGN

CAMPAIGN: A series of military operations that form a war.

Start at the title page. "GO TO WAR" should be displayed on the sail. If not, press + or – until it is. Press **Enter**. The sea scroll will open, revealing the titles of a variety of campaigns. Most of the scrolls in the game are about two screens long, so use the + or – keys to see all of the information.



From this point, until you press **Enter** after choosing your opponent, you can go back (all the way to the title screen, if you wish) by pressing **Esc**.

TITLES
THE BANE OF OLDAIN
THE RACE FOR THE CROWN
RUNNING THE GAUNTLET
THE LAST CROWN
Select a campaign title. Esc to back up
+ or - to change, ↵ to select.

Following the directions at the bottom of the screen, make sure the sabre is pointing to "The Bane of Oldain" and **Enter**. The sea scroll will close, and when it reopens, will reveal the story behind this campaign. After you read through the story, press **Enter**. The scroll will close and reopen again, this time showing you the rules. The rules have been individually preset for each campaign, but you can adjust them. However, it's a good idea not to make any changes until you are more familiar with the game. After you have read the rules, press **Enter**.

Now you will meet your opponent.

CHOOSING AN OPPONENT

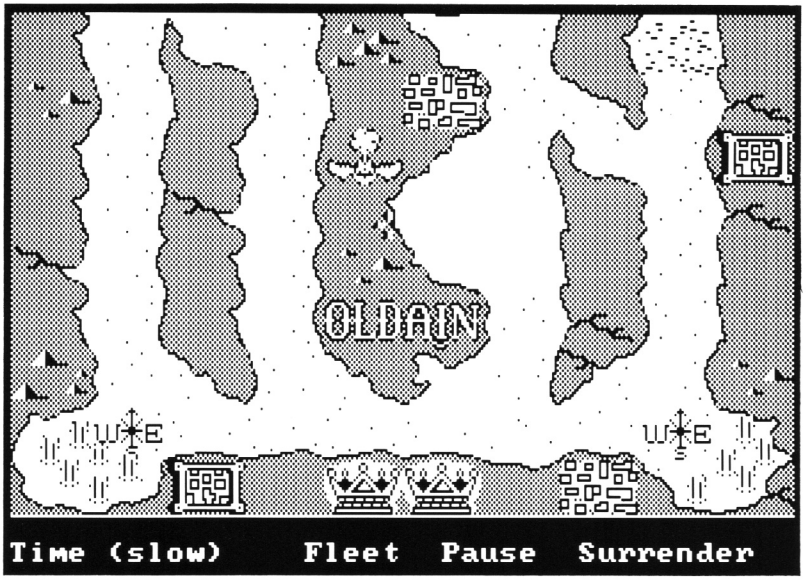
You can fight any of the enemy leaders portrayed on the screen. Each has a different fighting style, as well as different strengths and weaknesses. At the top of the screen, you will see the enemy's name and a brief description of his fighting style. Use the + or – keys to move the cursor box through the opponents. (HINT: the easiest opponent is Thor Foote.)

When the cursor frame is on the enemy you want, press **Enter**.

VIEWING THE WAR MAP

As the campaign begins, you have a sea gull's eye view of the war map. At the bottom of the map are two ports. The port on the left side of the screen is a Repair Port. To improve the condition of a squadron's sails and hulls, anchor it at a Repair Port. The port at the right side is a Supply Port. To increase a squadron's supplies, anchor it at a Supply Port.

Between your ports are two white crowns. If an enemy ship reaches a white crown and defeats any white squadrons at that crown, you will have lost the campaign (the enemy's crown is at the top of the map). Crowns will also repair and supply ships.



Dark ocean areas represent rough water, and are dangerous for frigates to sail through. Light colored ocean areas represent shallow water, and are dangerous for ships-of-the-line and flagships to sail through. The Wind Cherubs at the top center and bottom center of the map indicate which direction the wind is blowing only if the wind is set to "realistic" in Ye Olde Options Shoppe. The wind direction will occasionally change during a campaign.

The white cross-shaped object near the center of the screen is the marker which lets you scout out the enemy squadrons and command your own.

The ship and anchor symbols represent squadrons of ships. You control the white squadrons, and the enemy controls the black ones. A squadron symbol with a flag on it means there is a flagship in that squadron.

To scroll the map, use the – key to scroll up (when you're ready, the + key will scroll you back down). You can jump quickly to the top or bottom of the map by pressing the **Shift** key and the + or – key at the same time. You can use **Ctrl** in place of +, and **Tab** in place of –. This is especially helpful if you are left-handed. If you are using the joystick, hold down button #1 and move the joystick to scroll the map.

You will receive messages during the campaign indicating enemy ship sightings, imminent encounters and other events. These messages will appear at the bottom of the screen, just above the command line.

YOUR MISSION

Win by capturing or sinking all of the enemy's flagships while protecting your own. You can also win by capturing a black crown. In The Ancient Art of War at Sea, the most skillful player does what it takes to win the campaign with a minimum of fighting.

COMMAND OPTIONS

At the bottom of the current screen are several command options. Throughout The Ancient Art of War at Sea, command options will appear, usually at the bottom of the screen. To select an option, press the letter key that corresponds to the first letter of the command. In this example, the commands are as follows:

Time — You can alter the speed of the campaign at any point when Time appears on the command line by pressing **T**. Four different settings are possible. (You may want to use a slower time when you're making your plans, then speed up time when you've got everything set.)

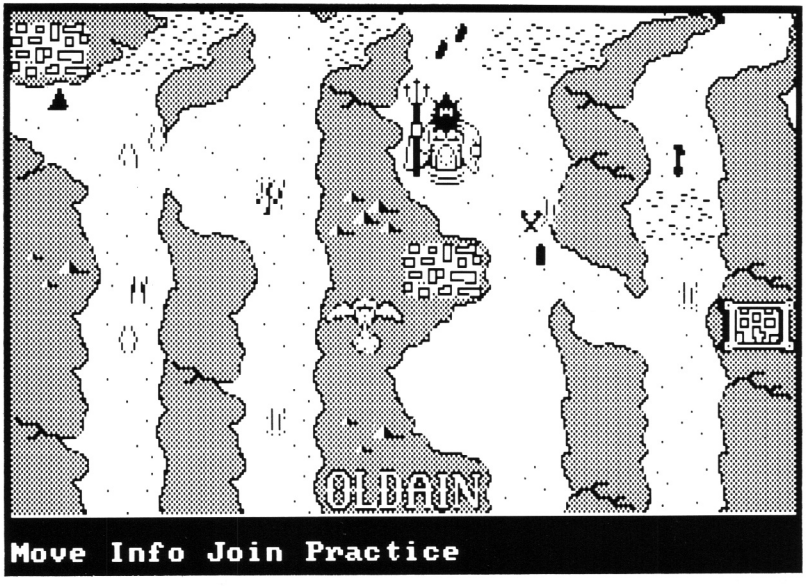
Fleet — Press **F** and the size of both fleets will be displayed. You will see the types and total number of ships on both sides. The game will freeze while you are doing this. Press **E**nd (or any other key) when you are done.

Clear — Use Clear to remove old messages from the bottom of the screen. Clear will not appear when there are no messages displayed.

Pause — Use Pause to freeze the game. To get things going again, press any key. Clear will sometimes takes the place of Pause on the command line but Pause will still work.

Surrender — You can surrender at any time during the game when Surrender appears on the command line by pressing **S**.

Saving the Game — Press **Alt S** if you want to save the game so you can resume playing where you left off at a later time. The computer will prompt you to insert a formatted data disk.



Original battle flag/Battle of Lake Erie, Sept. 10, 1813, courtesy United States Naval Academy Museum.

There are more command options available when you have the marker positioned over one of your own squadrons. To move the marker, use the arrow keys on the right side of the keyboard. If you want to move the marker at an angle, use the 1, 3, 7, and 9 keys. If you are using the joystick, just move it in the direction you want the marker to go.

Move — To "move" a squadron, press **M** (notice that the marker changes its shape to an open box). Move the marker, using the keyboard or joystick, to trace the path you want the squadron to follow, and press **M** again to mark the destination (a small white mark will appear here). The squadron will follow the exact same route that the marker took. Collisions between squadrons will not occur.

Occasionally, while you are tracing a squadron's path, the computer will mark a destination before you press **M**. This means the computer's memory for keeping track of squadron paths is temporarily full. Once the squadron reaches the marked destination, you will usually be able to move it ahead to the final destination. The computer can keep track of 700 increments so this shouldn't happen very often.

Info — Press **I** to see what ships are in a squadron. It will show you their names, type, the condition of their sails and hulls, supplies on board and sailing speed. While you are in Info, you can change the squadron's sailing speed by pressing **S**. A frigate at half sails will move at the same speed as the larger ships with full sails. Press **E** when you are done.

You can gather limited information about an enemy squadron by placing the marker over it, and pressing **I** for Info.

Detach — To detach part of a squadron, press **D**. Use the + or – keys to select a ship and then press **S** to switch it to the new squadron. When you are done, press **E**.

Join — If two squadrons are close enough, you can Join them (up to a maximum of 3 ships in a squadron). Press **J** and then join them in the same way you detached a squadron. If Join is not shown at the bottom of the screen, you can use Move to bring the squadrons closer together.

Zoom — This option appears on the command line when you place the marker over a squadron that has encountered an enemy squadron and changed into the battle symbol of crossed sabres. Zoom gives you an exciting, animated close-up view of the battle where you can give tactical commands to your ships.

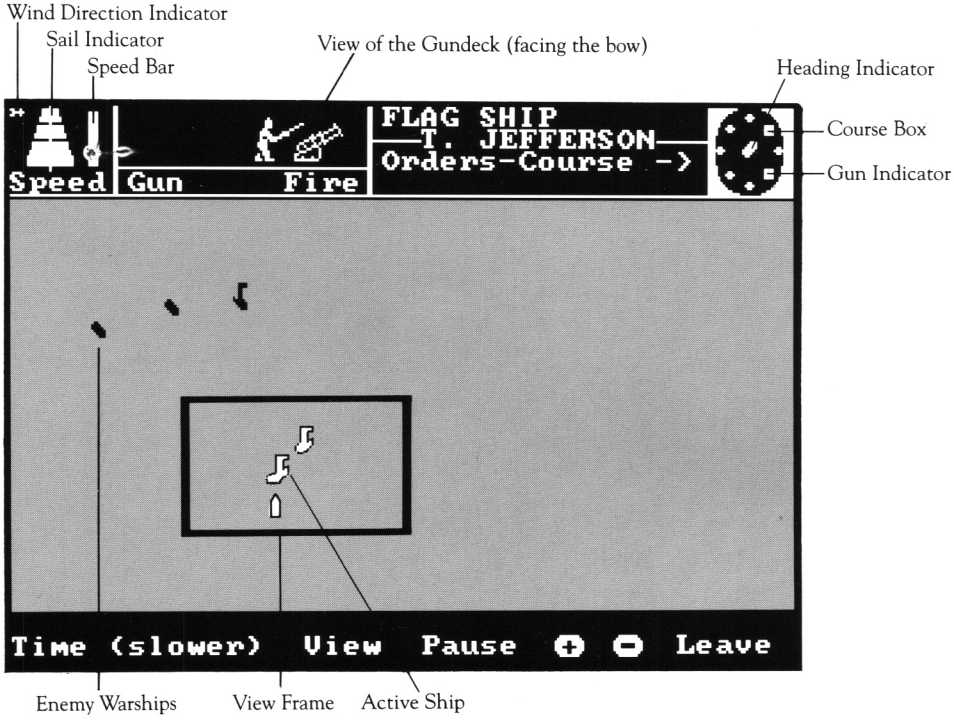
Practice — Use this option to familiarize yourself with tactical operations. Practice is the same as Zoom except it is used when the enemy is not present. Press **P** and you will zoom in for a closer look at your squadron. Don't worry, nothing you do during practice will harm your ships. Once you leave practice, the squadron will be exactly as it was before you started. When you are done practicing, press **E**.

TACTICAL OPERATIONS

Tactical operations begin after choosing either Zoom or Practice. During this phase, movement on the war map will stop. You can choose between two views, a long view of the entire tactical battle area, or a closer view of a portion of the battle area. The white ships on the screen are yours and if enemy ships are present, they will be black.

The long view lets you see the relative positions of all the ships involved. This is useful for setting up your tactical plan and watching the enemy's plan of attack. Since the long view is used primarily when the enemy is still far away, time will move faster than when using close view. This is to minimize the delay before the action begins.

During a long view, you will see the view frame over the water. The ship in the center of the frame is the selected ship and information about it is displayed at the top of the screen. You are "on board" the selected ship and can give it orders. If there is more than one ship in your squadron, use + or – to select another ship. The selected ship will "blink" and be centered in the view frame.



Speed: Adjust the sails to control the speed of the ship.
Gun: Change broadsides to fire from the other side of the ship.
Aim: Change the barrel elevation to adjust the range.
Fire: Shoot the cannon.
Orders: Change the Ship's Orders
Time: Adjust the speed of the game.
View: Switch between close-view and long-view of the battle.
Pause: Freeze the action temporarily.
+,**–**: Select a new ship to be "Active."
Leave: Leave the battle, return to the battle map.

The view frame will follow that ship until you use the keypad to move the view frame around the battle area. When you press the **Space bar**, the view frame will center on the selected ship and begin following it again.

The view frame can also be used like a magnifying glass by pressing **V**iew. This gives you a close view, causing the area inside the view frame to fill the whole screen. You can also move within this close view by using the keypad. For example, press 7 to move Northwest, 6 to move East, etc. The close view is useful for precision maneuvering and combat. Holes in damaged sails and hulls can also be seen during a close view. In long view,

a disabled ship will show damage marks. To return to a long view, press **View** again.

If enemy ships are present, try moving the view frame so that enemy ships are within its boundaries and press **View** to see the condition of their sails and hull.

If two ships are close enough where part of one is being covered by the other, the nearest ship will become partially transparent so you can see the hidden ship.

If a ship goes far enough off the edge of the battle area, it has retreated and you can no longer use it during this battle.

If a ship is stopped, it will drift in the direction of the wind.

If the battle takes place near a shore, avoid the hidden coral reefs and shoals that occur near land.

Time moves a little slower when you are using close view than during a long view. But even the slowest time setting in the game is considerably faster than the pace real sailing ships moved at during actual battles. In real battles, it could take a ship an hour just to turn around and battles often lasted from sunup to sundown.

Time, View and Pause can be used almost always in tactical battle mode, even if they are not displayed on the screen.

If you decide you want to leave a tactical battle before it is over, press **Leave**. You will return to the strategy level and the battle will continue and resolve itself on its own.

COMMANDING A SHIP

When you have selected a ship in a tactical battle, you are responsible for the ship's speed, course, orders and cannons. When using a command, it will be highlighted. When appropriate, additional instructions will be shown on the command line at the bottom of the screen. To leave a command and clear the command line, press **Enter**.

If you are using a particular command you can usually go directly to another command without having to formally leave the first command. Just type the first letter of the new command.

SAILING SPEED

The speed of the ship is determined by the condition and trim of the sails and the direction of the wind.

The trim of the sails is represented at the top left corner by the Sail Indicator. Press **S** and then use **+** or **–** to adjust the trim. The more sail that is put to the wind, the faster the ship will move. If no sail is shown, the ship will come to a halt. Press **Enter** when you are done. To quickly go

to full sails, press **S** twice. If the sails are already full when you do this, they will switch to no sails. As a ship's sails become damaged the Sail Indicator will start to turn blue, indicating decreased effectiveness of the sails.

The Wind Direction Indicator is to the upper left of the Sail Indicator. The wind can blow from any of the four primary compass points (N, S, E, or W). The Wind Direction Indicator will only appear if wind is set to "realistic" in the Options Shoppe.

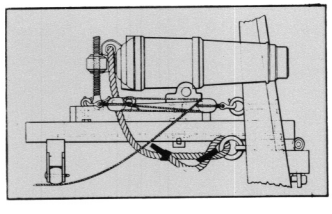
Momentum is a factor when moving a ship through the water. A stopped ship will take a few moments to get up to speed after giving it full sails, and a moving ship will take a few moments to stop after cutting the sails all the way back. A ship that loses momentum will drift in the direction the wind is blowing.

To the right of the Sail Indicator is the Speed Bar. It works like a speedometer. The Speed Bar will be full when a ship is in perfect condition, using full sails and on a course that takes full advantage of the wind. Trimming the sails, sail damage and beating into the wind contribute to reducing your speed and are reflected in the Speed Bar. If the wind is set to "not realistic" in Ye Olde Options Shoppe, it will not affect the Speed Bar.

CANNONS

To the right of the Sail Indicator are the controls for the ship's cannons. You decide which side of the ship the men will be on (the men can fire the cannon from only one side of the ship at a time) and when to fire.

If a ship is not selected, it will automatically shoot at enemy ships.



Carronade, circa 1820.

GUN

Your crew can man only one side of the ship at a time. If the crew is at the cannon on the right, the ship will fire out of the right (starboard) side. To change broadsides, press **G** for Gun and your crew will move to the left (port) cannon.

To help you visualize which direction your cannons will fire, look at the gauge at the top right of the screen. Your ship is in the center and the red square shows the direction that your cannons will fire.

AIM

Aim is available to the player only when "Manual Aim" is selected in Ye Olde Options Shoppe. If Manual Aim is not selected, the crew will automatically aim the cannons for you, and this option will not be available.

You cannot aim or fire a cannon unless your crew is on that side of the ship and in firing position (standing behind the cannon with the firing punk ready).

To aim your cannons, press **A**. Use **+** or **–** to raise or lower the aim.

FIRE

On the top of the cannon barrel is a small hole with a bit of gunpowder in it. When you order "Fire!" (press **F**), a slow burning punk is touched to this hole. The flame from this flash runs down to the base of the charge and the cannon fires. Your crew will then quickly reload and you'll be ready to fire again.

When realistic reload is selected in Ye Olde Options Shoppe, your crewman will get a cannonball, roll it down the cannon barrel, and then use his rammer. After sliding the cannon back into position, the cannon is again ready to fire. The crew may skip some of the loading steps depending on the reload time setting in Ye Olde Options Shoppe. When practicing, your reload time is always set to minimum.

You will see a flash on the target ship when a cannonball hits. Damage from sail hits is evident as the ship's sails become increasingly tattered. A hit on the hull will destroy cannon and crew and leave holes. Damage to sails and hull can be seen most clearly when the side of the ship is facing you.

ORDERS

Battle orders are given to ships in your squadron individually. To change a ship's orders, press **O**, then use **+** or **–** to rotate through the available orders. You can also press **O** again if you prefer, since it works the same as **+**. Some of the orders are not always available (only when appropriate). While Orders is selected, time stops.

General Chase: Make your best speed and course to individually attack the enemy.

Follow Ship in Front: Try to maintain a single-file line if it is behind another ship.

Mimic Ship in Front: Copy the maneuvers of the ship ahead.

Avoid Battle: Stay away from the action.

Course: Player controls the heading of the ship. When you select this order, a box will appear on the perimeter of the gauge at the top right of the screen. Use **+** or **–** to move the box around the gauge, and the ship will turn to the heading indicated by the box. If you rotate the box clockwise, the ship will turn clockwise and vice versa. If you move the box more than one revolution, the ship will do likewise. A quick way to change a ship's orders to Course is simply to press **C** (you don't need to press **O**rders first).

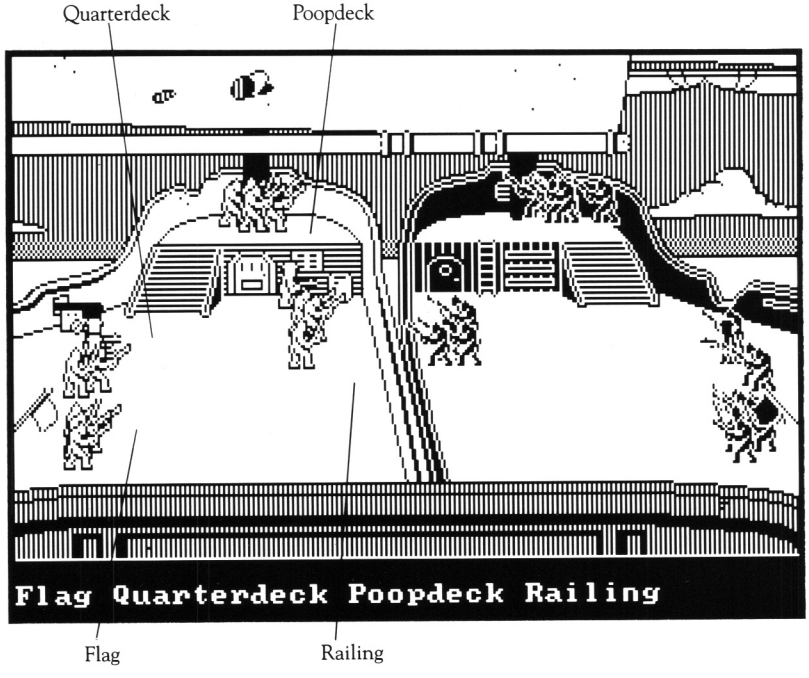
Board: Grapple a disabled ship.

At the upper right of the screen is the compass. At the center of the compass is the "Heading Indicator" which shows the active ship's current heading. The red square is the "Gun Indicator." It shows which broadside

will shoot when you press **F**ire. When a ship's orders are "Course," the white "Course Box" will appear showing the current course assigned to the active ship. The "Heading Indicator" will always point at the "Course Box" except when the active ship is turning to that course.

BOARD

If two ships come together, side by side, they will grapple. If neither ship is disabled or extremely overmatched, you will have the opportunity to command the battle yourself. When you receive the message that two ships have grappled, select Zoom to take command and meet the enemy man to man.



There are two types of fighters, sailors and marines. Marines shoot rifles and their orders are to take their station and fire at will. Sailors fight with swords and will respond to your commands.

Two ways to win when boarding:
1. Capture the enemy's flag.
2. Defeat the enemy sailors and marines.

The Four Zones: The raised deck at the stern of your ship is the **P**oopdeck. The lower deck is the **Q**uarterdeck, except for the area by the enemy ship, which is called the **R**ailing. The fourth zone is the area around the **F**lag.

Commands: You command your sailors by assigning them to a new zone to fight in. To do this, press the first letter of the zone the sailor is in, followed by the first letter of the zone you want him to move to. For example, to move a sailor from the Poopdeck to the Flag, press **P** and then **F**. To repeat a command, press **A**gain. If you select a zone to move from and then change your mind, you can cancel it by pressing **Backspace** or **Esc**. From the Poopdeck or the Railing you can command a sailor to **C**ross. A sailor with this command will try to fight his way across the enemy ship and try to reach their flag. Once a sailor is told to Cross, he will be dedicated to that mission and you will not be able to recall him.

To begin the battle, press **A**ttack. If you would rather leave and let them fight it out for themselves, press **L**eave.

SAILING TO WAR

Now you've learned how to command squadrons, gather information on a strategic level and command battleships on a tactical level! Remember — the enemy squadrons are on the move while you're getting ready to meet them, so act quickly!

The campaign can end in any of four ways:

1. When the last ship on either side is captured or sunk.
2. When the last flagship on either side is captured or sunk.
3. When one side captures the other side's crown.
4. When either side surrenders.

After the campaign is finished, you will see the results of the battle. A chart will show how many warships on each side were sunk or captured and the number of flagships that were sunk or captured.

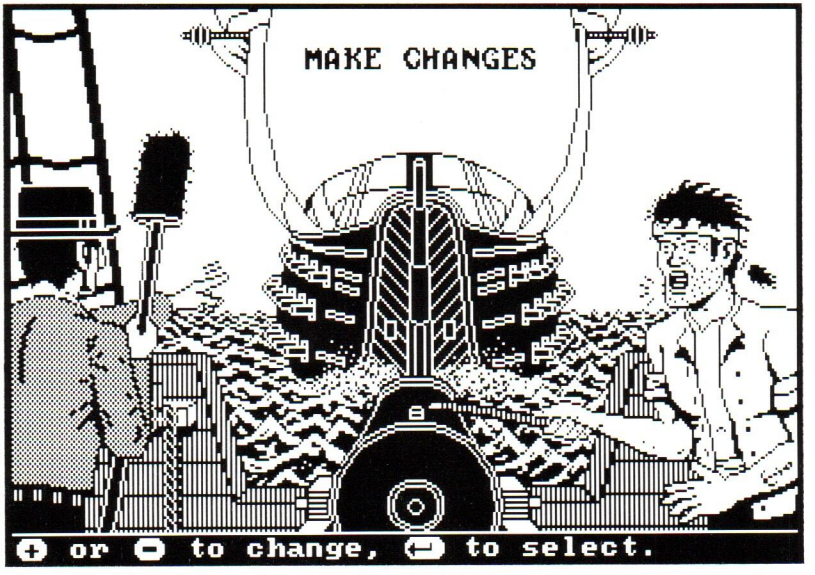
END OF TRAINING SESSION

The purpose of this training session was to show you how to use the program. To learn strategies and tactics that will improve your skills read Book II, the "Planning Guide."

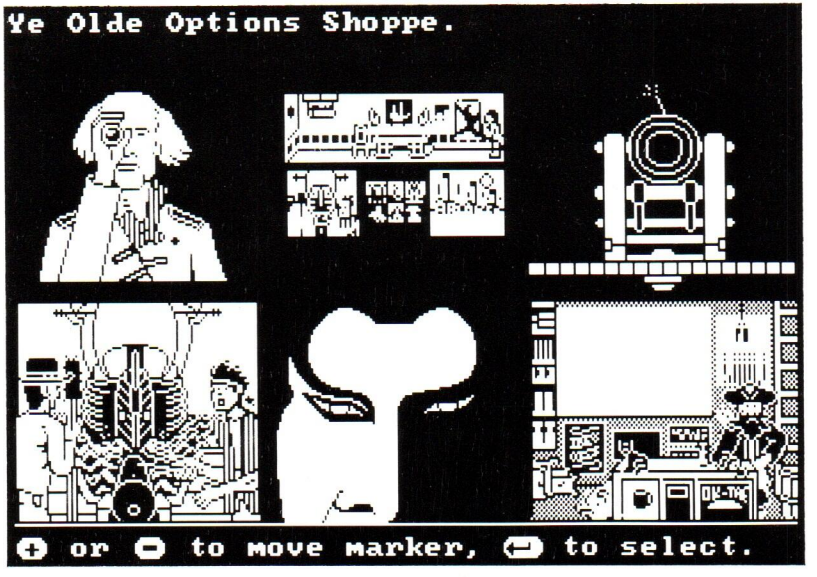
There isn't anything you can do in this part of the program that will have a permanent effect, so feel free to "cut loose!" You can change any or all of the rules and choose a different opponent if you wish. Each campaign can be very different, depending on the rules and the enemy, but the next time you play the game, everything will return to the way it was before you started.

YE OLDE OPTIONS SHOPPE

This is used to customize the game to your system and to adjust the game play. To get to Ye Olde Options Shoppe, start at the title page and press + or – until "MAKE CHANGES" appears on the sail.



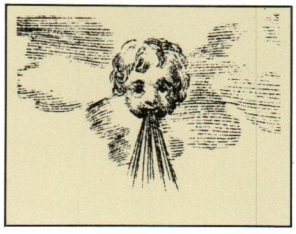
Press **Enter**. You will see the Changes Page.



Using the + or – key, move the cursor (the flashing frame) to the picture in the lower right corner of the screen ("YE OLDE OPTIONS SHOPPE" will appear at the top of the screen). Press **Enter**.

You will see a list of options. To change an option, press + or – until the sabre points to that option, then use the **Space bar** to change it. Directions also appear at the bottom of the screen.

Fight Delay: When a squadron encounters an enemy squadron, their symbol changes to crossed sabres and you have the opportunity to Zoom into the battle and take charge. If you don't Zoom, the battle will start without you and you will no longer be able to Zoom into that battle. This option adjusts the amount of time you have to place your marker over the squadron and press **Z** to zoom. A Short setting gives you about 15 seconds before the battle starts, Medium gives you about 30 seconds and Long is about a minute.



"Bed of the Wind" from Hoste's "L'Art des Armees Navales."

Wind: When the wind is Not Realistic, ships will move at the same speed regardless of their heading. When the wind is set to Realistic, ships will move slower when sailing into the wind. This is a more authentic and challenging mode of play.

Reload Time: A Short reload time means that after firing your cannons, they will be ready to fire again almost instantly. This is less realistic, but does speed up the action. The longest reload time is the most realistic and the timing of your shot is very important. If you shoot too soon, the enemy may be out of range before you can reload.

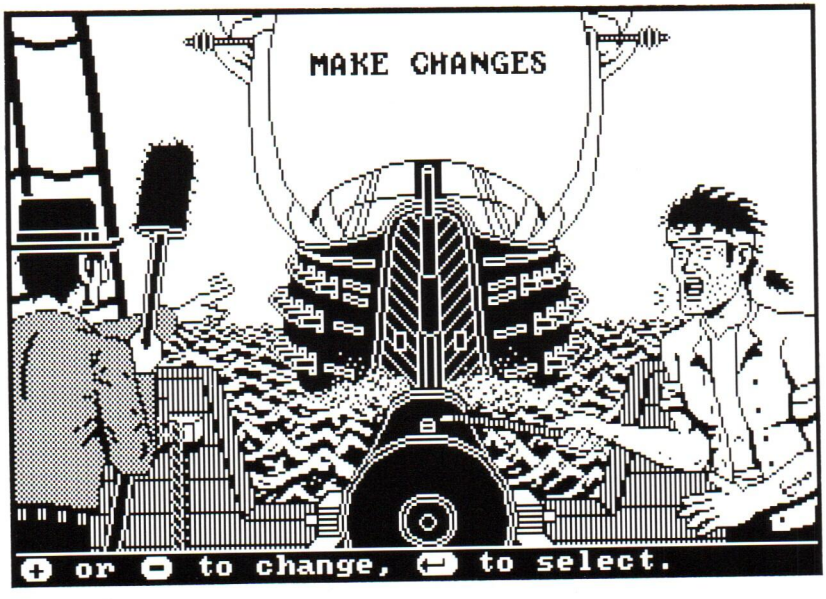
Aim: Automatic cannon aim is easier but not always as accurate as manual aim because you are relying on your crew to aim for you.

The rest of the options are self-explanatory.

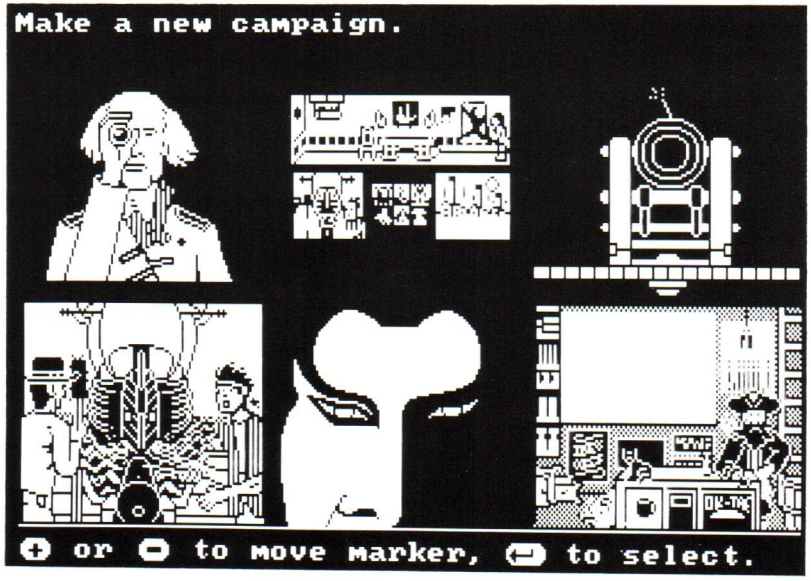
When you are done, press **Enter** to go back to the title page.

GAME GENERATOR

In this part of the Ancient Art of War at Sea, you can create your own campaigns; you can re-create historical battles or simply indulge your imagination. You will save the campaigns you create on data diskettes (up to 11 campaigns per disk), so you can make all the campaigns you want, and replay them all.



To use the Game Generator, start at the title page. Press + or – until "MAKE CHANGES" appears on the sail, then press **Enter**.



The changes page will appear and give you a choice of six selections. The name of each selection will appear on the screen when the marker is over it. "Make a New Campaign" is the first choice. "Change a Campaign," the second choice, allows you to revise (edit) a game you have already created. "Remove a Campaign," the third choice, allows you to remove one of the campaigns you created from your data disk. "Return to the Title Page," the fourth choice, takes you to the beginning of the program. The last choice, "Ye Olde Options Shoppe," allows you to change options settings.

Choose "Make a New Campaign." The computer will now ask you to insert your formatted data disk into the disk drive. You can use the same data disk for new campaigns and saved campaigns. (The drive you use for your data disk can be changed in "Ye Olde Options Shoppe." See the section titled "Getting Started" if you have not changed any options settings yet).

Creating a new campaign involves six steps: making a map, placing squadrons of ships on the map, selecting the enemy leader, setting the rules, and writing the story and the title.

MAKING A MAP

Making the war map is a lot like putting a puzzle together. Press **Enter** to begin.

There are four tools you use while making your map; the map board, the marker, the map grid and the map pieces.

Mapboard: At the top of the screen is a view of a section of the Mapboard. This is where you will place pieces of your war map (right now it's all water). Slightly less than one-sixth of the total map board is seen at one time.

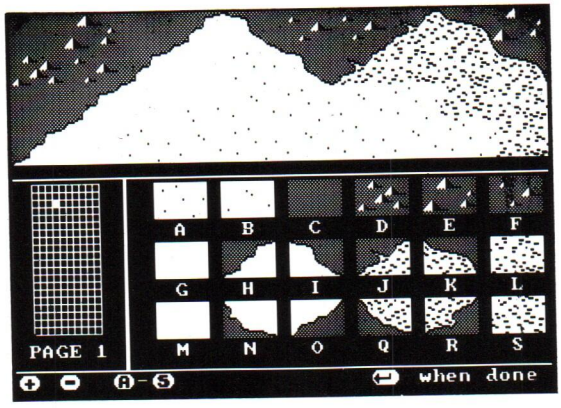
Marker: The marker is the bright square on the Mapboard. To move the marker, use the arrow keys. You can scroll through the entire map board with the marker.

Map Grid: The map grid is at the lower left of the screen; it is a miniature version of the map. The bright square represents your marker, so you can see where you are placing things in relation to the rest of the map.

Map Pieces: To the right of the map grid are the map pieces. To move a map piece onto the map board, type the letter under it and the piece will appear under your marker. You can use any map piece as many times as you wish; if you change your mind, you can change a map piece to another after you have placed it.

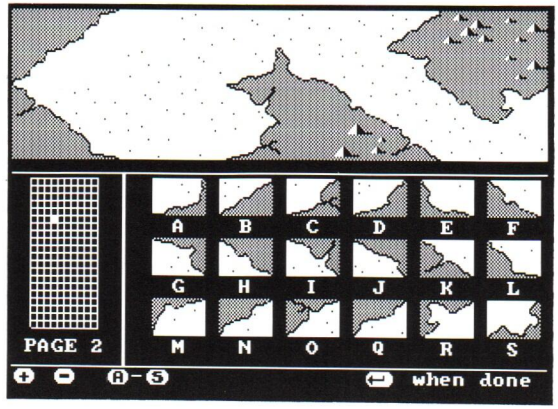
There are five pages of map pieces; to flip through the pages, press + or –. You can go through them as many times as you wish. Here is a listing of the map pieces and their command keys:

Page 1:



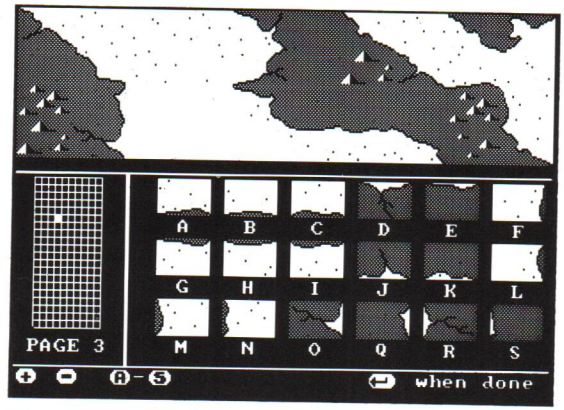
A and B are deep water. C is land, D, E and F are hills. The rest of the map pieces are shallow and rough water. The shallow water is light colored, the rough water is dark.

Page 2:



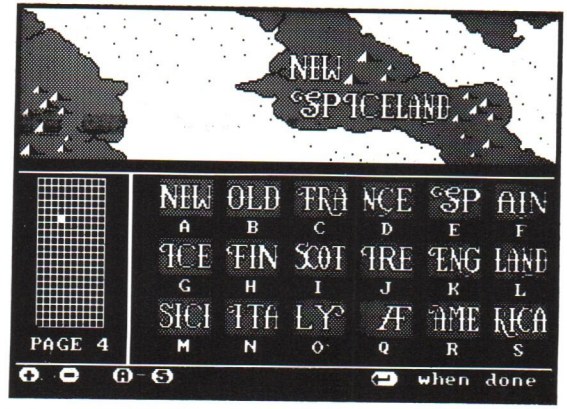
This page is all corner shorelines.

Page 3:



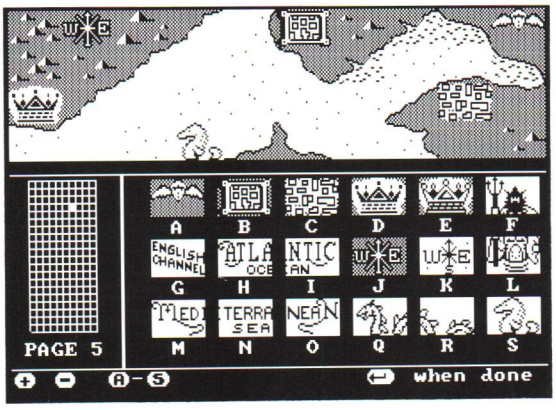
This page is all flat shorelines.

Page 4:

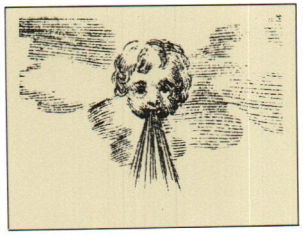


This page has the location identifiers that go on land.

Page 5:



A is the Wind Cherub that indicates which way the wind is blowing. B is a repair port and C is a supply port. D is an enemy crown and E is a friendly crown. J is a compass to put on land and K is a compass to put over water. The rest are decorative characters and location identifiers that go on water.



DESIGNER TIPS

When making a map, you will probably find it works best to block out the land first (using C from page 1). After the basic land formations are on the map, add the shorelines (both corner and flat). Then finish the map with the other features.

All shores adjacent to ports must trace water routes to the edge of the map to allow merchant ships to reach them.

For ships to benefit from a port, there must be a narrow flat shore square next to the port (or no shore at all). A ship will not receive supplies if anchored next to a port on a wide flat shore square or corner shoreline square.

Try to place Wind Cherubs so that one is always visible when playing the campaign. This means having at least one in the lower ⅔ of the map and at least one on the upper ⅔ of the map.

Study the campaign maps that come with this program for more ideas of how the pieces can fit together and, with a little practice, you'll be putting first rate maps together in no time!

When you have completed your map, press **Enter**.

The map you just made will appear on the full screen; now, you are ready to place squadrons of ships on it.

MAKING A NAVY

To build a squadron of ships, move the marker to where you want it located and press **S**. A window will open at the center of the screen. Type the name you want to give the first ship and then press **Enter**. Press **T** if you want to change the type of ship. To change the condition of the ship's sails and hull, press **S** or **H** and then use **+** or **–** to increase or decrease the condition of its sails or hull.

Press **+** again to build another ship in the same manner.

When you are done building ships, press **+** until the bright indicator box is on the "Supply" line. If you want to change the color of this squadron, press **F**. To increase or decrease its supplies press **S** and then use **+** or **–**.

When you're finished, press **E** to End and the squad will appear under the marker.

To change something in a squad, put the marker over the squad and a new command line will appear at the bottom of the screen. Press **I** for Info and you can make your changes.

To move a squad to a new location, put the marker over the squad and press **G**et. Then move the marker to the new location and press **P** to "Put" him there.

To remove a squad entirely, put the marker over it and press **R**.

When you are all done with both fleets, press **Enter** (when the marker is not over a squadron), and you will go to the next section.

HINTS:
Each side must have at least one Flagship or Crown. If not, the program will select a ship to be Flagship. It might select a different ship each time you play the campaign.

For name ideas, see the section in this manual titled "Ship Names."

As many as 40 ships can be in a campaign at a time. It might be wise to leave a few openings for merchantships if your campaign has ports.

SELECTING THE ENEMY ADMIRAL

The third step is to select an Admiral for the enemy fleet. Press any key to begin.

Each Admiral has a different fighting style. To learn about them, see the Planning Guide.

Using the **+** or **–** keys, scan through the choices. When the marker highlights your choice, press **Enter** to continue.

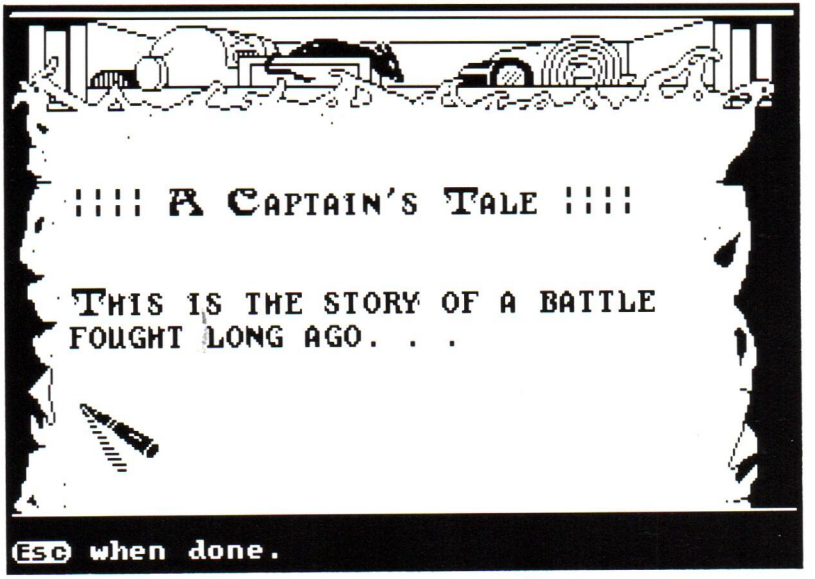
SETTING THE RULES

The fourth step is to set the rules. Press any key to begin.

Press + or – to move the sabre to the rule you want to change and then use the **Space bar** to change it. When the rules are set like you want them, press **Enter**. The sea scroll will close, then open again.

WRITING THE STORY

The fifth step is to write the story. Press any key to begin.



The pen appears, and now you can write the story behind the campaign you have created. Just type in the words as you normally would. You can move the pen with the arrow keys. The backspace key will erase as it moves back.

When you are done, press **Esc** and the scroll will close and open again.

WRITING THE TITLE

The sabre will appear at a blank line on the scroll. Put the title of your campaign here (it needs to be at least one letter, and it can be up to about 25 characters long, including spaces). After you type in the title, press **Enter**. The scroll will close and you will return to the title page.

PLAYING YOUR NEW CAMPAIGN

To play your new campaign, at the title page select "GO TO WAR." The

first scroll the computer will show you will be from your war disk. To play the campaign you just created, choose the last selection, "Data Disk." The computer will tell you when to swap disks. You can also play one of the campaigns that come with the program at this point.

AFTER PLAYING YOUR NEW CAMPAIGN

After playing your new campaign, you can use "Change a Campaign" to adjust the difficulty, modify the map, etc.

Book II

PLANNING GUIDE

Since fighting and wars
are the arts which we trade in,
We must have a little and short cannonading.
Our guns must be fired
at a distance but still,
with no wicked intentions
to wound or to kill.

(Sailor's song, 1756)

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NTRODUCTION

To become a consistent winner at the Ancient Art of War at Sea requires a study of both strategy and tactics.

The strategic portion of a campaign involves bringing the squadrons of your fleet into action in such a way that they have an advantage over the enemy.

The tactical portion involves the handling of individual ships during a battle.

Careful study of this Planning Guide will help you become a better player in The Ancient Art of War at Sea.

HIP DESCRIPTIONS

The warships in The Ancient Art of War at Sea are of the late 18th century variety. You will encounter four types of ships in The Ancient Art of War at Sea.

MERCHANTSHIP

Merchantships supply ports with food, provisions and various nautical equipment. They are lightly armed and built for carrying supplies, not fighting. Merchantships have their own orders and you have no control over them. You can intercept enemy merchantships to capture their supplies.

FRIGATE

Frigates are small warships. They usually had one gundeck in addition to cannons on the quarterdeck and forecastle. The classic frigates carried between 30 and 44 guns. Fast and maneuverable, they could escape a ship-of-the-line and were powerful enough to handle any other vessel.

Called the "eyes of the fleet," frigates were the fast scouts used to search out and shadow the enemy. During combat they would harass the enemy, rescue survivors and pass messages between ships-of-the-line. Frigates were also used to escort convoys and as troop carriers.

A frigate in The Ancient Art of War at Sea is a sleek, fast, two-decker with 44 guns and a crew of 250.

SHIP-OF-THE-LINE

"Ship-of-the-line" is a term that originated during the 17th century to describe large warships that were strong enough to stand in a line of battle. These massive warships could give and take a powerful punch and were the pride of their country's navy.

The most common ship-of-the-line had 74 cannons. All ships that had at least three decks and 64 cannons were called ships-of-the-line. They were later referred to as "liners." This is where our modern terms "ocean liner" and "airliner" originated. They were very powerful war machines but were less maneuverable and slower than frigates.

A ship-of-the-line in The Ancient Art of War at Sea is of the classic type: a four deck, 74-gun warship, including 10 carronades, and a crew of more than 600.

FLAGSHIP

The largest ships-of-the-line carried up to 130 cannons and were used as flagships for the most senior admirals. Expensive to operate and maintain, Britain seldom had more than a dozen flagships afloat at one time.

A flagship in The Ancient Art of War at Sea contains an Admiral and is of the classic type: a massive four-deck, 130-gun warship, including 22 carronades and a crew of 875... the most fearsome sight on the high seas.

TRATEGY

CONCENTRATE YOUR POWER

Pitting strength against weakness is the most important principle in the art of war.

(Sun Tzu, 400BC)

Since ancient times, the primary offensive objective of land war strategy has been maneuvering to isolate and attack a smaller enemy force. The primary defensive strategy has been to prevent the enemy from striking a similar blow to you at another place.

This principle also holds true if you are at sea. When facing an enemy fleet of equal or greater size, isolate small groups of enemy ships. Attack partial fleets with full fleets. Isolate one ship and fight it with two or three ships. This is the way to defeat an enemy both strategically and tactically.

Usually try to keep squadrons full with three ships instead of splitting them into smaller squadrons. If you split them up, you'll end up with two or three weak squadrons instead of one powerful squadron.

Before deciding to battle, compare the strength of your squadron to the strength of the enemy squadron and determine your chances of victory. (Strength is determined by the number of ships on each side, the type of ships on each side and their condition.) Then, try to engage in battles only from a position of strength. The condition of the ships involved can have a major effect on the odds of winning.

Focus your attention on enemy flagships (where their Admirals are). Since a fleet cannot function without any Admirals, eliminate their flagships and they will be defeated. Cut off the head and the body will die.

KEEP YOUR SHIP IN SHAPE

Use your Crown or Supply ports to keep your ships stocked. A well fed crew is an efficient crew. Use your Crown or Repair ports to keep your ships in good condition. One fresh ship is better than two badly damaged ships. If a squadron's supplies decrease below 20%, the condition of the ships in the squadron will start to deteriorate. This is because the crew has to ration food and can't work as hard to keep the ship in good condition.

Anchor near a food port to increase supplies. Anchor near a repair port to improve condition. To be sure your ship is receiving supplies or repairs from a port, check its Info after it is anchored. Instead of indicating speed, it should say "In Port." A Crown will increase both the supplies and the condition of any ship in its harbor. A ship cannot be repaired unless its supplies are above 20%. Another way to increase a squadron's supplies is to capture enemy merchantships or intercept friendly merchantships.

Frigates are the fastest ships on the high seas. But a squadron can only sail as fast as its slowest ship. If you need speed, make sure your squadron is made up exclusively of frigates.

MERCHANTSHIPS AND PORTS

Ports supply or repair any squadrons that are anchored in their harbor as long as the port has supplies. When a port's supplies get low, it will send for a merchantship to replenish its depleted stock. If a merchantship is captured before reaching port, the port will send for another merchantship but may soon run out of supplies. When a port changes colors, it is out of supplies and closed to any squadrons in its harbor.

To blockade a port, use a squadron to intercept merchantships enroute to that port. The enemy will lose supplies and your squadron will gain supplies. Frigates are effective interceptors since they are the fastest ships on the sea.

You can also intercept your own merchantships at sea to increase a squadron's supplies. If the squad's supplies are below 50%, the white merchantship's supplies will be used up and it will disappear. You cannot capture a merchantship after it reaches a port's harbor.

You may want to send warships to escort friendly merchantships if the enemy presents a threat to your supply line.

ROUGH WATER / SHALLOW WATER

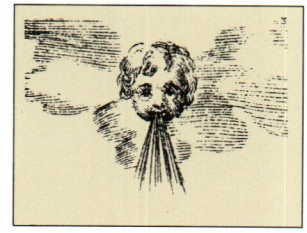
Larger ships (flagships and ships-of-the-line) can sail through rough water without fear of damage, but frigates will often sink, depending on how rough the water is. This factor can be adjusted in the Rules scroll just before starting a campaign.

It is very dangerous to try to sail large ships through shallow water. When a flagship is lost in shallow water, the Admiral will board another ship-of-the-line that is in the same squadron. If there is none, the Admiral will go down with his ship. Frigates have no trouble in shallow water.

Merchantships can sail through rough or shallow water without fear of damage.

WIND

Wind is a major factor in the speed of sailing ships. If wind is set to realistic in Ye Olde Options Shoppe, look for the Wind Cherub on the map to see which way the wind is blowing. Generally, the more you try to sail into the wind, the slower your squadron will move. The wind may change during a campaign. Wind speed varies from 5 to 15 knots.



If you plan to attack an enemy squadron, try to gain the wind advantage by meeting him with the wind at your back. The position of the crossed sabre symbols in relation to the wind on the strategic level determines the two squadron's position in relation to the wind after you zoom to the tactical level.

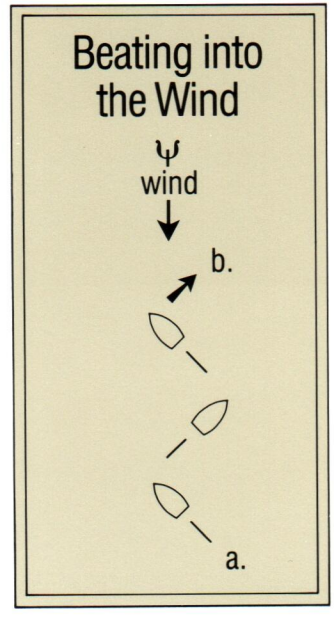
TACTICS

For over 200 years, wooden sailing warships were constantly being improved. They evolved from the lumbering galleons of the Spanish Armada to the powerful HMS Victory. As ships improved, so did battle tactics. The "Fighting Instructions" dictated stiff and formal tactics for the Royal Navy. But by 1800, innovative commanders like Nelson had discovered more efficient methods relying on individual initiative and surprise.

MANEUVERING

The art of war at sea consists of proper maneuvering once the enemy is sighted.
(Admiral Hoste)

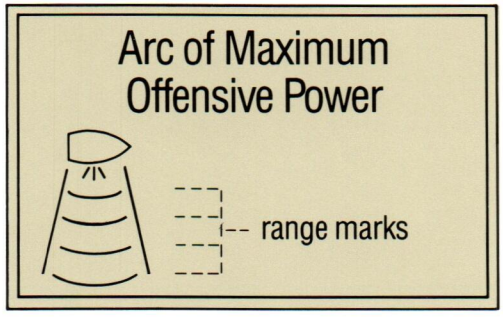
1. Beating into the Wind



Many battles at sea began with both sides maneuvering for the wind advantage. When you position your enemy downwind, your ship will be

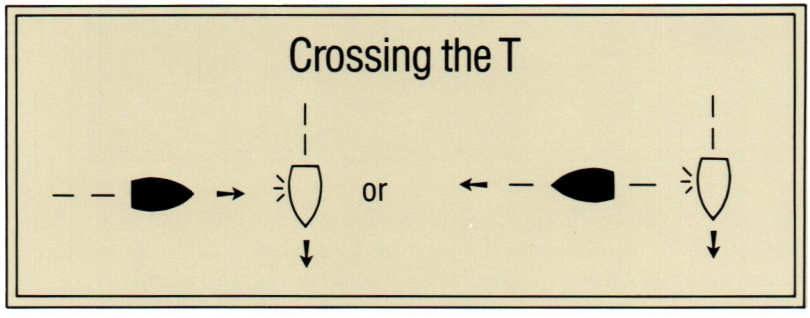
faster and can chose when and how to begin the attack. To reach a point directly upwind, you need to sail a zig-zag pattern since you cannot sail directly into the wind. This is called beating into the wind.

2. Arc of Offensive Power



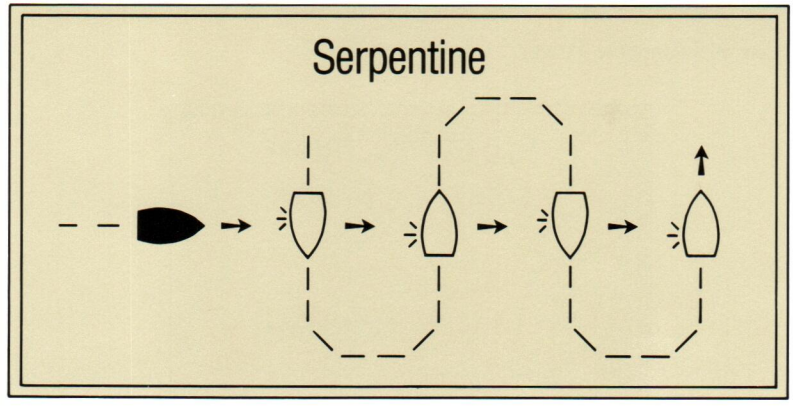
The purpose of maneuvering is to concentrate your maximum firepower on the enemy with minimum return fire. To do this, you first must be aware of your ship's "arc of maximum offensive power." The range of your "arc" is determined by the aim of the cannons. Long shots are most likely to hit the enemy ship's sails. By hitting the enemy ship's sails, you will reduce her speed and maneuverability and eventually disable her. Close shots are most likely to hit the enemy ship's hull. Hull shots destroy cannons, reducing firepower. Severe hull damage will sink a ship.

3. Crossing the T



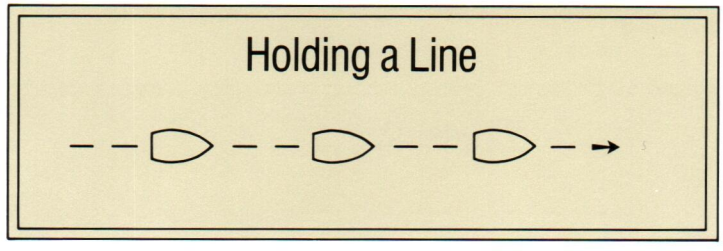
This is the classic maneuver in the art of war at sea. A "T" is formed when two ships come together with one ship's bow or stern toward the other's broadside. This allows the ship at the top of the "T" to fire a broadside, raking the enemy ship without fear of return fire.

4. Serpentine



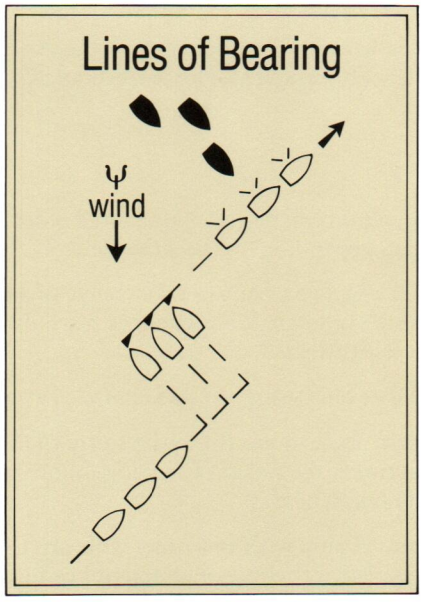
This advanced maneuver is most effective when battling a slower ship (a frigate vs. a ship-of-the-line) or when your ship has the wind advantage. Begin by crossing the "T" and then make a quick 180-degree turn in the same direction that the black ship is moving. At the same time, move the crew to the other broadside and fire again. You can continue in this manner until the black ship is able to maneuver out of it.

5. Holding a Line



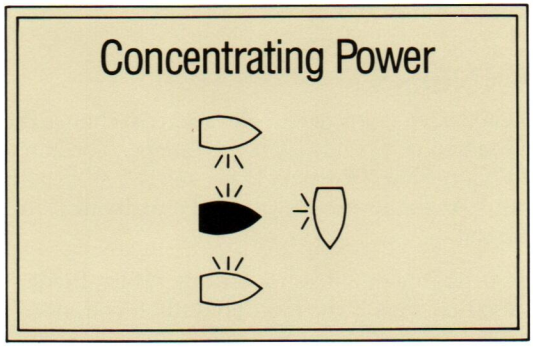
At the start of a battle (just after using Zoom) your ships will be in a line formation. To maintain the line, the lead ship should adjust its speed to maintain proper spacing. The distance between ships in a line is very important. If they are too far apart, the enemy might slip through the gaps and cross the "T." If spaced too close, there is the likelihood of collision. When turning a line, don't turn the lead ship more than 90 degrees at a time. Let the following ships fall in behind and then turn the lead ship again.

6. Lines of Bearing



When beating into the wind, a line would sometimes switch between line astern and line abreast to keep the formation tight. To perform this maneuver, order the middle and rear ship to "mimic ship in front" and then set the course of the lead ship to beat into the wind.

7. Concentrating Power



Try to focus your combined firepower on an isolated portion of the enemy's line. Once a ship is isolated, it can be surrounded or raked by crossing the

"T." Crews are not large enough to work both broadsides at the same time. Take advantage of this by placing the gunfire of several ships against the return fire of only one enemy ship.

Admiral Howe of the Royal Navy would cut off the enemy's rear to gain numerical superiority. This would also force the French to turn and fight to reinforce their rear.

ORDERS

Each ship in your squadron can be given individual orders. The orders that you can give will vary depending on the situation.

Course: This is used when you want to take charge of a ship's navigation. When changing a ship's orders to Course, check her sails to make sure they are set the way you want them.

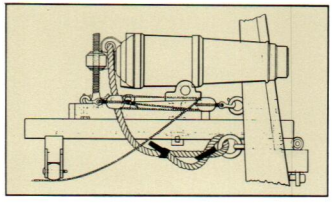
General Chase: Make your best speed and course to attack the enemy.

Follow Ship in Front: You can use this order to try to maintain a line. If a ship gets sunk or captured, the orders of the ship following it will automatically change to General Chase.

Mimic Ship in Front: A ship with this order will turn the same amount as the ship in front of it even if they are on different headings. To form a line abreast, form a line and then order all ships to mimic except the lead ship. Then turn the lead ship 90 degrees using Course. Caution: ships-of-the-line will have trouble trying to mimic the faster and more maneuverable frigates.

Avoid Battle: If a ship gets badly damaged and you risk losing it, you may want to order it out of the action.

Boarding: A ship with this command will sail to and board a disabled enemy ship. It can also board a disabled friendly ship and make enough repairs to put it back into action.

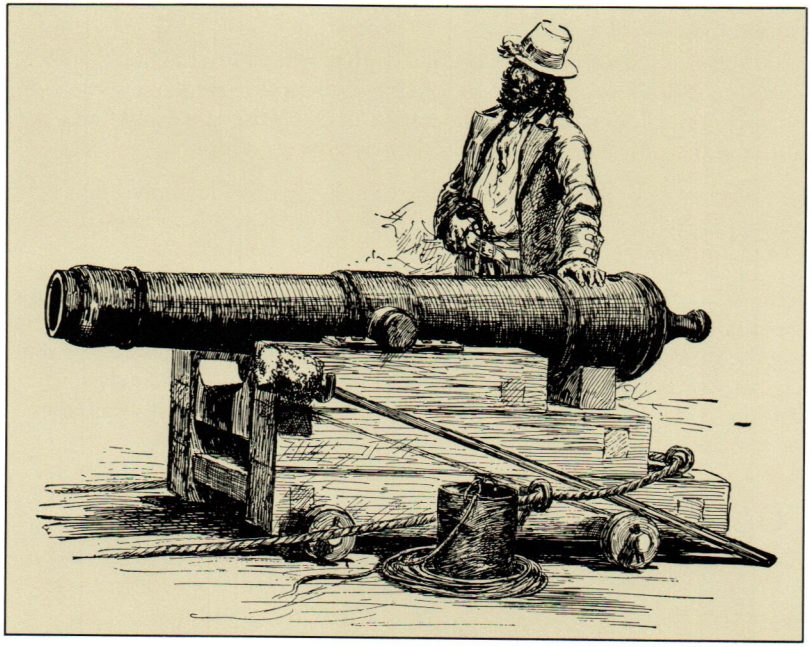


THE CANNONS

The cannons can be set at any of four elevations to change the range when Aim is set to Manual in Ye Olde Options Shoppe. The aim for maximum range is called "Gun-Shot," the next lower aim is "Musket-Shot," followed by "Pistol-Shot." At the lowest elevation, "Point-Blank," the cannon barrel is horizontal.

When a ship-of-the-line or a flagship is firing "Point-Blank," the carronades will also fire. This is the most powerful broadside.

After firing your cannons, try to let the crew finish reloading before



ordering them to the other side of the ship. This way, your broadside will always be armed and ready.

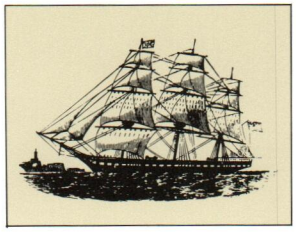
Long shots are more likely to hit the enemy's sails, close shots are more likely to hit the enemy's hull. By hitting an enemy ship's sails, you will slow the ship down and eventually disable her. By hitting a ship's hull you will destroy cannons, reducing firepower, and eventually sink her.

PRACTICE

The best tactic is useless without a good crew. The British always had crack crews because of their emphasis on drill and practice. Use the Practice command when you are not being threatened by enemy ships. Then practice giving orders, setting a course, adjusting the trim of the sails and the aim of the cannons.

Your cannons will have a "quick reload" time during practice. Use Aim and try the four cannon elevations to see how far they will shoot. Try shooting from a turning ship to see how that affects your aim.

Feel free to experiment; you can't hurt anything. After you finish practicing, your squadron will be the same as before you started.



ANCHORED SHIPS

If you attack a squadron that is anchored, they will still be anchored after you zoom. It takes an anchored sailing ship some time to get moving because the anchor needs to be raised, sailors have to climb the masts and lower the sails, and then the wind will finally start to move the ship.

Take advantage of this weakness and strike the enemy's anchored fleet quickly. Try to begin the attack from the windward side so you can strike at your maximum speed.

Being anchored will also work against you if you are attacked by an enemy squadron. You must first order the crew to set sail. To go to full sails quickly, press **S** twice. Then, the crew will raise the anchor and lower the rigging. The wind will finally fill the sails and your ship will slowly start moving. If your ship is facing into the wind, change its course away from the wind or you may never start moving.

COLLISIONS

Collisions between ships was a common occurrence at sea. Crews trying to hold a tight formation would sometimes collide. During a melee, it was easy to crash into another ship in the smoke and confusion.

Collisions occur when two ships come together but are not in a position to grapple (side by side). In a collision, the stronger ship will be damaged, the weaker ship will sink. A collision between a ship-of-the-line and a frigate will almost always result in the sinking of the frigate.

EXPLOSIONS

Explosions occur when enemy cannon fire ignites the gunpowder supplies on deck. If another ship is too close to the exploding ship, it might also explode.

DAMAGE

A ship can be damaged by: 1. enemy cannon fire, 2. a collision with another ship, 3. explosions, 4. lack of supplies.

A damaged ship will be slower than a fresh ship because of damage to sails and rigging. It will also have less firepower because of hull and cannon damage. It is also in danger of sinking or being grappled. Keep your ships in the best possible condition by visiting ports frequently.

BOARDING

"My share of the prize money will be a welcome sum of money, a gratifying sum."

(Lord Hornblower)

Supreme excellence in the art of war occurs not when you destroy but when you capture. An enemy ship captured is worth two enemy ships sunk. Not only do you weaken his fleet by one ship, but you strengthen your fleet by the same amount.

When two ships come together, side by side, they will grapple and a boarding will occur. Be careful not to sail directly into another ship or a collision will occur. If friendly ships grapple, a badly damaged ship can receive limited supplies and repairs. If unfriendly ships grapple, they will try to board and capture each other. Any ship that is much stronger than its enemy will quickly capture the weaker ship.

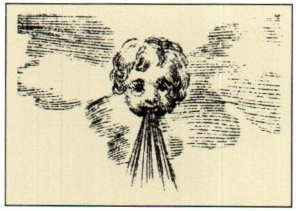
Be careful when firing on a damaged ship that you want to disable: a strong broadside could sink it. To disable the ship, try not to damage it enough to sink it. Since a frigate's firepower is less potent than a ship-of-the-line's, try using the larger ship to damage an enemy ship and then bring in a frigate to disable it. Or just "nick" the damaged ship with your broadside.

A damaged ship will slow down because of damage to sails and rigging. When a ship's sails are severely damaged, it will be disabled. Any ship that grapples a disabled ship will capture it. You can board a disabled ship either by giving the "Board" order to one of your ships or by using "Course" to come alongside that ship. A disabled ship will not put up a fight. If one of your ships becomes disabled during battle, try to board it. Enough of your crew will transfer to the disabled ship to let it rejoin the battle.

When the two unfriendly ships are near the same strength, you will have the opportunity to take command and meet the enemy man to man. When the battle starts, you will see marines firing rifles and sailors swinging their sabres. To win, you can either capture the enemy's flag or defeat the enemy soldiers. You command the battle by moving sailors to different areas of the ship. There are two battlefronts, the Poopdeck and the Railing. Your goal is to overwhelm the enemy at one of these fronts without leaving a weakness in the other.

A boarded ship becomes a captured prize ship. It turns white and a part of your crew will lead it back into battle.

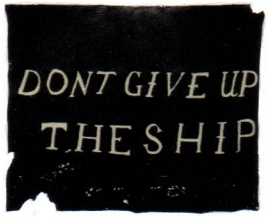
WIND



The wind can blow from any of four directions. After you zoom, check the wind indicator, at the top of the screen next to the sail, to find the wind direction. The position of the two squadrons is determined by their position relative to the wind before you zoomed.

Ships cannot sail directly into the wind. They can sail into the wind up to a point, but the closer into the wind they sail, the slower they will move.

To understand the effect of wind on a sailing ship, imagine you are standing on the side of a hill. You can't climb straight up the hill because it



is too steep. You can climb up at an angle but only slowly. Sideways and downhill you can run. When sailing, imagine the direction the wind is blowing from the top of that hill.

If you are sailing perpendicular to the wind and want to make a 180-degree turn, it is faster to turn away from the wind than into the wind.

If the wind is blowing toward shore, try to get enemy ships between your ships and the land to restrict their maneuvering.

A ship between the wind and her opponent has the "weather gauge" and is on the "windward side", the other ship is in the "lee" position. Maneuvering onto the windward side gives you the initiative since you will have greater speed than your opponent and can decide when and how to begin the attack. It is difficult for the lee ship to attack since sailing upwind is slow and leaves her vulnerable to enemy fire. Wind has a similar tactical advantage as high ground in land warfare (the ship with the weather gauge is at the top of the hill).

A good defense is to cross the attacking ship's "T" as she approaches, before she turns parallel to you and brings a broadside to bear. The French would fire at the approaching British fleet in this manner, aiming high at their sails to slow them down, and then escape downwind. The British believed this disadvantage was offset by the improved morale that goes with offensive action. Admiral Howes' solution was for each British ship to cut through the enemy line, raking the stern of their opponent's ship and then engage the fleet on the lee side.

RETREATING

To retreat, sail your ship off the edge of the battle area. If your side ends up winning the battle, it will rejoin the same squadron when the battle is over. If your side loses, the retreating ship will form a new squadron a short distance away. There is also a chance of losing the ship due to a mutinous crew that is ashamed of its cowardly captain.

SUMMARY

To be successful in battle requires quick decisions and skillful handling of your ship. Gang up on an enemy ship that is cut off from the rest. Set a course that will bring your guns to bear and not his. A point-blank broadside will cause more damage than a long shot. Tempt the enemy to fire at long range and then cross his stern or bow to rake him before he has time to reload. Be careful when maneuvering against one ship that the maneuver won't put you in peril from another.

ENEMY COMMANDERS

If you know the enemy and know yourself, you need not fear the results of 100 battles.

(Sun Tzu, 400 BC)

It is important to study the enemy leader to anticipate his tactics, exploit his weaknesses and avoid his strengths.

THE PLAYER

Strategy: Your strategy is up to you.

Tactics: Your cannon range is surpassed only by Jones and Nelson. The accuracy of your shots can be increased (or decreased) by taking charge of firing the cannons yourself (manual aim).

When grappling, 75% of your crew will be sailors and 25% marines. (Sailors are the swordsmen and marines are the riflemen.)

Cannon Range	●●●●●●
Reload Speed	●●●●
Accuracy	●●●●●●●
Seamanship	●●●●●●●●●

Crew Quality adjustable in rules (green = 1●, average = 4●, crack = 7●).

THOR FOOTE 871

Thor Foote, the sire of Crazy Ivan and countless others, is the leader of a band of misguided Vikings.

Strategy: If Thor thinks too hard, it makes his head hurt. So, he will not put a lot of thought into his strategic plan.

Tactics: His short-range cannons are manned by poorly trained crews. Neither his sailors or marines are skillful fighters.

When grappling, 95% of his crew will be sailors and 5% marines.

Cannon Range	●●●●
Reload Speed	●●●●
Accuracy	●●●
Seamanship	●●●●
Crew Quality	●

DUKE OF MEDINA SIDONIA 1588

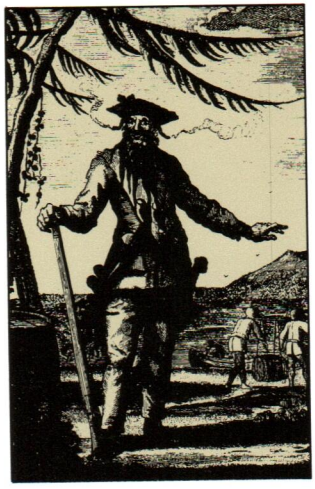
Don Alonso Perez de Guzman el Bueno is the seventh Duke of Medina Sidonia. He was appointed Captain General of the Spanish Armada when it sailed against England in 1588.

Strategy: Sidonia tends to pick an objective and then move towards it en masse.

Tactics: Sidonia's cannons can only shoot a short distance so his ships will try to fight at close range. His Spanish galleons are slow and bulky ships that were built to carry marines. His goal is to board your ships where he can use his superior marksmen to defeat you. His sailors are not skilled in the art of fencing.

When grappling, 25% of his crew will be sailors and 75% marines.

Cannon Range	●●●●
Reload Speed	●●●
Accuracy	●●●●●
Seamanship	●●●●●●●●
Crew Quality	●●●●



Blackbeard

BLACKBEARD 1718

The King of the Pirates terrorized the American coast and the waters of the Carribean.

Strategy: Blackbeard will fight anyone in sight, regardless of strength, and will never surrender.

Tactics: Beware of Blackbeard's bloodthirsty pirate crew: they are the most deadly swordsmen on the high seas! He will try to close with your ships where he can board and fight man to man. Motivated by greed, the pirates can reload their cannons faster than any other crew.

When grappling, 95% of his crew will be sailors and 5% marines.

Cannon Range	●●●●
Reload Speed	●●●●●●●●●●
Accuracy	●●●●●
Seamanship	●●●
Crew Quality	●●●●●●●

MARTEN TROMP 1639

Marten Tromp represents the middle period during the reign of the sailing warships.

Strategy: Tromp is a conservative strategist and will patiently wait for an opening or weakness in his enemy's forces.

Tactics: His cannons are more accurate and will shoot farther than any enemy leader that came before him. The skill level of his marines and sailors are average. The maximum range of his cannons is equal to yours.

When grappling, 80% of his crew will be sailors and 20% marines.

Cannon Range	●●●●●●
Reload Speed	●●●●
Accuracy	●●●●●●●
Seamanship	●●●●●●●●●
Crew Quality	●●●●●

JOHN PAUL JONES 1779

John Paul Jones.

John Paul Jones is the father of the American Navy.

Strategy: The "Yankee Pirate" does not back out of a fight and will never give up.

Tactics: His cannons shoot farther than any other leader's except Nelson's. The fighting skills of his sailors and marines are above average.

When grappling, 80% of his crew will be sailors and 20% marines.

Cannon Range	●●●●●●●●
Reload Speed	●●●●●●
Accuracy	●●●●●
Seamanship	●●●●●●●
Crew Quality	●●●●●●

HORATIO NELSON 1805

Lord Admiral Nelson's brilliant career led to a century of British rule of the seas.

Strategy: The finest strategic thinker in the age of the fighting sail, Nelson puts great emphasis on training. His crews are very efficient and won't tire easily.

Tactics: Nelson will try to fight your ships from a distance to take advantage of his destructive, long-range cannons.

When grappling, 75% of his crew will be sailors and 25% marines.

Cannon Range	●●●●●●●●●●
Reload Speed	●●●●●●●●
Accuracy	●●●●●●●
Seamanship	●●●●●●●●●●
Crew Quality	●●●●●●●

EPILOGUE

To fight and conquer in every battle is not supreme excellence; supreme excellence consists of breaking the enemy's resistance without destroying.
(Sun Tzu, 400BC)

Book III

A BRIEF HISTORY OF THE AGE OF THE FIGHTING SAIL

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NTRODUCTION

Book III contains information about the historical period represented in The Ancient Art of War at Sea. Although not necessary for playing the game, reading this section will provide you with a colorful glimpse into an era forever gone.

"War at Sea" presents a brief chronological history of the major battles that highlighted the age of sailing warships.

"The Sailing Warship" describes the technology and weaponry employed by the ancient warships, and contains detailed information about one of the most famous sailing warships, the Constitution.

"Sailing Terms" defines a variety of words and phrases used by the "iron men" who manned the gallant warships.

WAR AT SEA

31 BC

Many centuries ago, armed trade ships sailed the northern European waters while slaves and convicts rowed war galleys on the Mediterranean Sea. One of the first known sea battles was fought off the coast of Greece in 31 BC by the Roman Emperor Agustus against Antony and Cleopatra. In 1577, war galleys were still battling in that area. Sea tactics had not changed much in 1600 years. There were less than a dozen major sea battles during those years.

Enemy fleets seldom met at sea because the early sailing ships could not sail upwind to meet the enemy and the galleys were limited by how far the men could row. Therefore, most early sea battles were fought near shore.

Ships were manned by both sailors and soldiers. At first, the sailors were considered inferior. Their job was not to fight but to transport the soldiers to enemy ships. Being at sea was not popular with the soldiers. They had been trained to fight on horseback with weapons and armour. At sea, they had no horses and their heavy armour made them fear falling overboard.

THE SPANISH ARMADA 1588

Come with me you jolly tars,
We're talking of the Spanish wars,
Come my boys and tack about,
We'll put the Spanish to the rout.
(title unknown)

In 1588, King Philip of Spain felt that England should be invaded so that a Catholic monarchy could be restored. He wanted to replace the Protestant Queen with his Catholic daughter, the Infanta Isabella.

At his command was the mighty Spanish Armada (Armada means fighting fleet). It consisted of 130 ships with 8,000 sailors and 20,000 soldiers. The Spanish galleons were heavy floating fortresses. They were not built for speed, but to carry soldiers. The smaller armed merchantships that sailed with them were even slower.

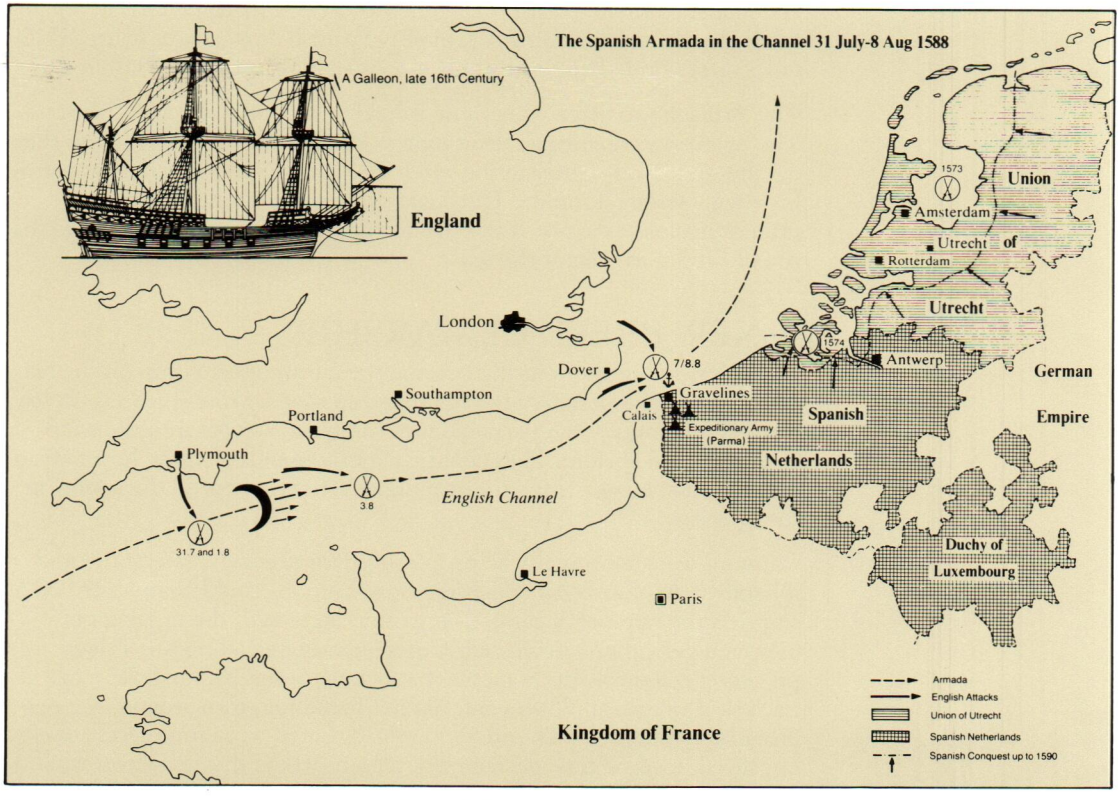
King Philip wrote to the 7th Duke of Medina Sidonia to lead the Armada. Having never experienced sea battles or even been in command of a fleet, the last thing Sidonia wanted was to lead the Armada against England. He wrote back to his King complaining about poor health, seasickness and poverty. It didn't help; he got the job anyway.

"You should see that your squadrons do not break their battle formations," wrote Philip to his new Admiral, "and that the captains, moved by greed, do not pursue the enemy and take prizes."

The plan was for his Armada to sail up the English Channel and board and destroy any British ships they encountered. This would clear the way for the Duke of Parma and the rest of the Spanish army.

The Spanish strategy was to use their superior numbers and short range cannons to damage the rigging of enemy ships at close range, slowing them down. Then, they could come alongside and board, overpowering the opponent with their soldiers.

Meanwhile, the technique of sea fighting was going through a major change in England. The British knew they had no chance of defeating the Spanish Armada at close range. So they planned to defeat them from a distance with a combination of better crews, faster ships, and new long-range cannons. It was the beginning of the Age of the Fighting Sail.



From "A History of War at Sea", Naval Institute Press, 1975. Used by permission.

The sailors of the Royal Navy became the new warriors of the sea. This new breed of sailor was given a new kind of ship that would be a sailor's weapon, not a fortress for soldiers. It was lighter, faster and more maneuverable. The British would fire their cannons until the Spanish would get into position to board, then they would change course and slip away.

The Royal Navy continued to harass the Armada as it slowly moved up the English channel. One skirmish began behind the Duke's flagship so he sent reinforcements and sailed on alone. A British flagship met him and fired her broadside; then instead of staying there, fighting it out to the end, she sailed away while the next British ship did the same thing, and the next ship, and the next. The entire British line took turns at the Duke and then doubled back and started all over again. When Spanish reinforcements arrived, the British broke off the action. The Duke's huge flagship, the San Martin, could still sail but had taken a severe beating.

On August 5th, the weather got worse. The Duke ordered the Armada to anchor. The British filled eight old ships with anything that would burn and launched them toward the Spaniards. The Armada had to cut anchor to escape. By early morning, the mighty Spanish Armada was scattered 10 miles downwind. The Spanish plans to invade Britain were shattered.

The Armada was defeated because it held to the old style of sea tactics. The Spanish were unbeatable as long as their enemies would fight as they did, but there was change in the wind. The British sailor could now destroy his enemy from a distance. The boarding of ships was no longer the primary means of victory. It was the decline of Spain as a sea power and the rise of Britain as ruler of the seas.

A NEW BREED OF WARSHIP

Britain's new breed of warship became the most powerful ship on the sea. It was a radical redesign of the fighting ship that rewrote the book on sea strategy and tactics. Sailors could now sail much steeper into the wind than they could before. They could sail for thousands of miles, hover off an enemy coast, blockade it, strike at targets ashore, or battle the enemy in the open sea.

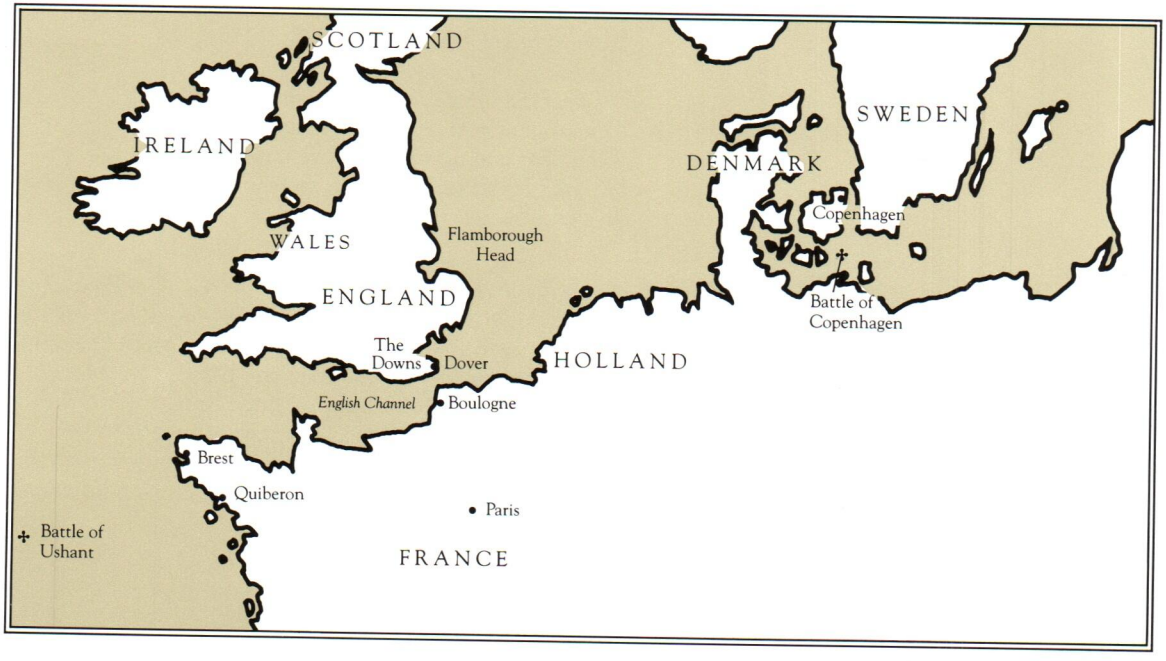
Cannons were continually being improved for accuracy, rate of fire and reliability. As they became lighter, more cannons could be mounted on a ship. As the number of cannons on a ship increased, the number of crewmen per cannon decreased. Consequently, reloading was a slow process. Because of this, a tactic of attacking in succession developed. Each ship would sail downwind, fire her broadside, turn around, fire her other broadside and then sail off to reload. Later, as cannons and crews improved, loading time decreased to a point where this maneuver was no longer necessary.

It had been common since ancient times for the bow of the ship to be used as a ram. With the ship's offensive power in the front, the attack formation of a fleet was side by side. Now that ships had rows of powerful cannons mounted on the sides, however, there was a major change in this fighting formation.

With the offensive power now focused out of the side of the ship, a new formation evolved called the "line ahead." Known simply as "the line," it was a single-file line of ships that presented a wall of fire to the enemy. The line was divided into three parts: the "Van," the "Center," and the "Rear." The fleet's firepower was now concentrated in one direction. This prevented ships of the same fleet from accidentally hitting each other. Instead of unorganized melees, the two opposing fleets would line up side by side. Each ship would fight an artillery duel with its opponent.

The Royal Navy's "Fighting Instructions" were first issued in 1653. The basic rule was that "all ships of every squadron shall endeavour to keep in line with the chief. None of the ships of the fleet shall pursue any small number of the enemy's ships till the main body be disabled or run." A captain's orders were plain: maintain your position in the line, side up to an enemy and fire away. The penalty for not holding the line could result in execution. Although effective to a degree, it had flaws as we shall soon see.

DOWNS 1639



Come, my boy, and let us go
To fight the proud insulting foe;
Come, let us finish what's begun,
And see what there is to be done.
(title unknown)

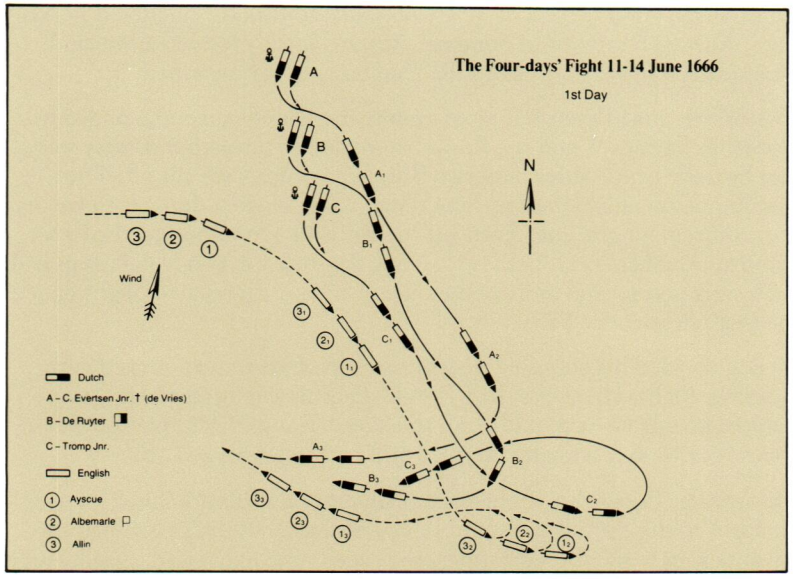
While King Philip of Spain rebuilt his shattered Armada, Marten Tromp of Holland was earning a name for himself in a series of adventures on the northern seas. The shallow waters along the coast of Holland forced the Dutch to build smaller warships. This made them fast and maneuverable but also limited the number of cannons they could carry.

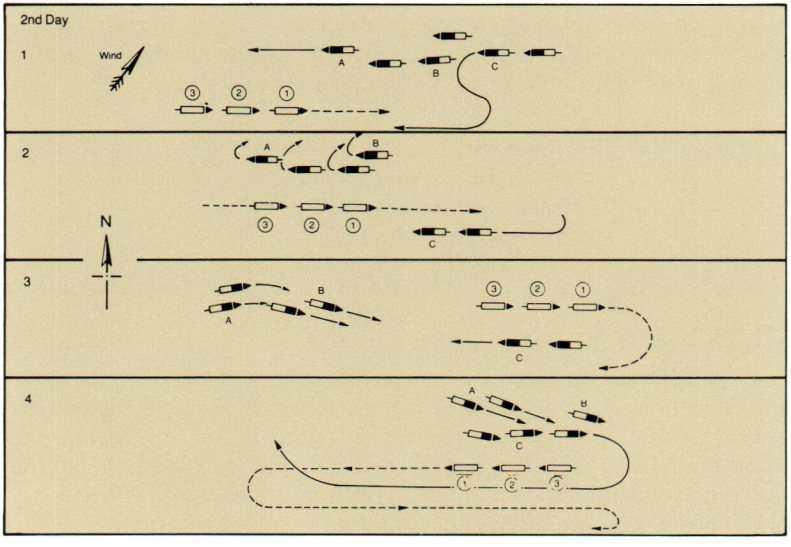
In 1639, Tromp was given the title of Lieutenant-Admiral of Holland. With just 17 ships, he met the second Spanish Armada in the English Channel. With the wind against him and outnumbered 4 to 1, he took the initiative and attacked with a fury, bringing the Armada to a standstill. Both sides backed off and waited. Tromp secretly sent desperate messages to Holland for immediate reinforcements. Several weeks later, Tromp had over 100 warships. Now he was ready to move. The anchored Spanish Armada fought bravely but nearly every ship was destroyed or captured. Tromp had earned a place in history, and the Dutch controlled the northern seas.

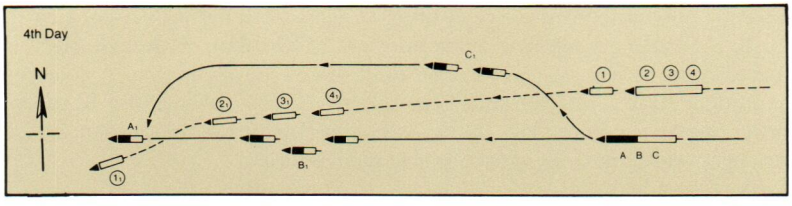
FOUR DAYS BATTLE 1666

By sea, so black and red a fight,
No time or age e'er brought to light;
The fire and water did contend,
Which should first bring them to their end:
More valiant men killed in three dayes,
Than three and twenty years can raise.
We can't afford such brunts as these,
To guard the Soveraign of the seas.
(The Four Dayes Fight)

The British and Dutch navies had many encounters at sea. The Four Days Battle took place in the English Channel with George Monck and Prince Rupert leading the British fleet. Admiral de Ruyter led the Dutch fleet and Marten Tromp's son, Cornelius, was in charge of the Dutch van. Monck made the mistake of splitting his fleet, sending Prince Rupert down the Channel with a squadron of 24 ships to meet what was thought to be Dutch reinforcements. Meanwhile, the combined Dutch fleet was actually upchannel sailing toward Monck. The wind turned and the Dutch fleet dropped anchor.







From "A History of War at Sea", Naval Institute Press, 1975. Used by permission.

This put the wind behind Monck who sailed toward the anchored Dutch fleet. Although inferior in numbers, Monck quickly formed a line and attacked as a single unit before the Dutch could get organized.

The British aimed their full force against the Dutch van commanded by Cornelius Tromp. When the Royal Navy tried to turn around, they were met by fresh Dutch ships, and two British flagships were cut off. The British opening had failed because rough water made it difficult to keep their ships in a tight line. Even so, the British hadn't done too badly for being outnumbered. Monck had lost one flagship, but two Dutch ships had been sunk and several more had to return to port for repairs. Night ended the first phase of the battle.

Monck decided his best defense was a strong offense and attacked with morning's light. He almost had Tromp's flagship captured when Dutch reinforcements arrived. Although this saved Tromp, his formation was in chaos. But Monck was also crippled and both sides backed off.

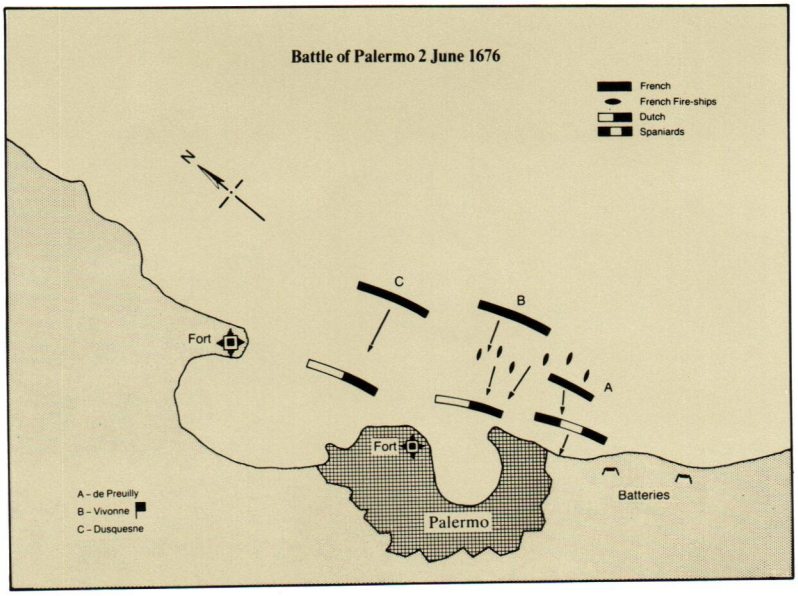
Meanwhile, Rupert heard the distant sound of the cannons and reversed course. On the third day, Rupert joined Monck, but the Dutch had the advantage of wind. On both sides, the crews were exhausted, powder and ammunition were running low, and ships were forced to return to ports for repairs. The British plan was to attack with Rupert's fresh squadron and wear the enemy down. Intense battles raged five times during the fourth day, and that night, the Dutch slipped away in the darkness.

Rejoyce, rejoyce, brave English boys,
For now is the time to speak our joys;
The routed Dutch are run away,
And we have clearly won the day.
(England's Royal Conquest)

SICILY 1676

In 1674, Sicily revolted against her Spanish rulers and asked France for help. To counter the revolt, the Dutch came to Spain's aid by sending de Ruyter. By now, he was nearly 70 years old. With 18 ships-of-the-line and 4 fireships, he decided to blockade Sicily's main port city, Messina, but the wind prevented him from entering the Messina straits, so he sailed along Sicily's north shore in hope of encountering a supply convoy.

What he encountered was a fleet of more than 20 of France's finest new warships guarding a supply convoy en route to Messina. Although de Ruyter knew he was outclassed, the wind was to his advantage. A younger man might have seized the initiative and attacked — Monck did 10 years earlier during the Four Days Battle — but de Ruyter had grown cautious with age, and both sides spent the day maneuvering.



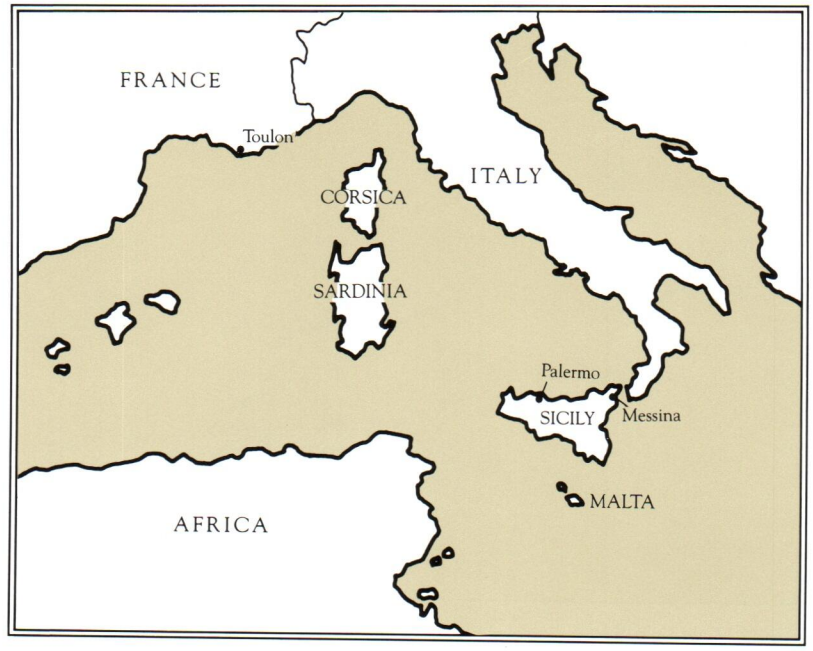
From "A History of War at Sea", Naval Institute Press, 1975. Used by permission.

As the night wore on, the wind was slowly shifting. By morning, the powerful French fleet had the wind advantage, but the Dutch had an experienced Admiral and a strong position between the French fleet and their home port.

The French approached the Dutch in a difficult maneuver that caused the two leading French ships to go off course. Their formation rapidly fell apart and a general melee resulted. Each side tried to cut off and overwhelm sections of the other's fleet. But by nightfall there was not much damage to either side and de Ruyter backed off.

The French fleet continued on to Messina. Failing to blockade Messina, the Dutch fleet withdrew to Palermo for repair and reinforcements. Although they had failed to stop the French, the Dutch had fought well against a superior force.

Four months later, the two fleets met again. When a squad of 10 Spanish warships joined him, De Ruyter's fleet numbered 29. The Spanish commander insisted that the Spanish squad form the center of the line. The old Dutch Admiral agreed but didn't like the idea. Not only would he lose high command of the fleet during the battle, but he would not be able to communicate with the Dutch rear. De Ruyter would rather have mixed the experienced Dutch ships with their Spanish allies.



Leading the van with the wind behind him, de Ruyter bore down on his enemy just as he had many times before. As he hit the French, the Spanish center failed to follow and fired at long range. The Dutch van was outnumbered and took a beating. The formal rules of war required the rear to follow the center, so they didn't enter the action until evening. By then, de Ruyter was wounded and taken below. The French withdrew and night fell.

During the night, the French returned to Messina. In the morning, the Dutch/Spanish fleet found themselves alone. Returning to a friendly port, de Ruyter died. Shortly thereafter, the Dutch gave up their attempt to blockade Messina and returned home.

THE DEATH OF BLACKBEARD 1718

Have you heard of Teach the rover,
and his knavery on the main;
How of gold, he was a lover,
How he lov'd illgotten gain?
(The Downfall of Piracy)

Navy warships shared the seas with privateers and pirate ships. A privateer was a ship commisioned by a government to raid enemy ships, usually merchantships, in return for the prize money of the captured ship and its spoils. Merchantships often became privateers during wartime. A pirate ship was usually against all flags and plundered merchant ships regardless of nationality.

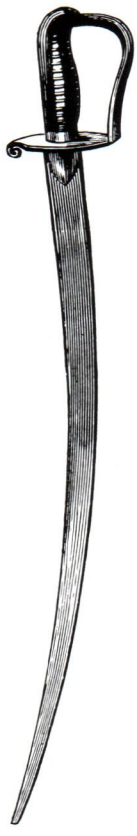
Edmund Teach was a Nassau pirate whose escapades created the legend of Blackbeard. Big, strong and wild, he was the best known pirate in history. Not even Captain Kidd so perfectly fit the public's romantic image of the pirate.

Along with his crew, Blackbeard drank like a fish and his temper was legend. He was married 14 times, and often to more than one woman at a time. Blackbeard was intensely competitive and was always determined to win at any cost.

This terror of the American coast used his image to strike fear into honest men's hearts. Blackbeard began his career on a privateer employed by the British in the West Indies. Around 1713, he met a crusty old pirate named Ben Hornigold. The young buccaneer joined Hornigold and proved to be a natural leader. In 1716 he took command of his own ship, which he named the Queen Anne's Revenge, mounted an additional 40 guns on her and sailed out of Nassau and into folklore.

During battles, he wore a bandoleer filled with pistols, daggers and a cutlass. But his long, black, bushy beard was the center of his mystique. He formed it into dreadlocks decorated with colorful ribbons, and made wicks out of hemp dipped in limewater and saltpeter and hung them from his hat. Just before battle, the slow-burning wicks would be lit. The result was frightening. At close quarters, sailors would look on the deck of the hostile pirate ship to see a wild-eyed shaggy brute with matted hair in a cloud of smoke! He looked like a demon from hell.

Blackbeard



A cutlass

Blackbeard sailed the seas from Virginia to Honduras for the next year and a half, winning more than 20 victories. By the summer of 1718, he commanded a 4-ship fleet of more than 400 men.

Blackbeard was in the shallow waters of the Carolina sounds when the Governor of Virginia put a price on his head. The fierce pirate awoke one morning, hung over, under attack by two small British frigates. He raised his black flag with its death insignia and lit his wicks. Quickly swinging his ship around, he fired a broadside that killed the captain, destroyed the rigging and paralyzed his first challenger.

Now it was one on one. The other frigate, commanded by lieutenant Maynard, approached cautiously. The first to fire was Blackbeard. It was another massive broadside that smashed the deck and wounded two thirds of Maynard's crew. As soon as the two ships came together, the pirates boarded.

Blackbeard led the pirates as Maynard led his charge. Blackbeard and Maynard met face to face and fired at point-blank range. The hung over pirate missed but Maynard's bullet hit its mark. Acting as though he didn't even feel it, Blackbeard advanced with his cutlass swinging. He slashed Maynard's cutlass in two. A crewman sliced Blackbeard across the throat, but still he advanced, screaming and spitting blood. The dying legend was shot again and again. Then he reached for a pistol and cocked it. Frozen in that position, Blackbeard fell to the deck and his pirates surrendered.

Maynard had Blackbeard's head removed and sailed back to Virginia with his trophy swinging from his bowsprit.

QUIBERON BAY 1759

It had been customary for enemy ships to fight despite the odds. But now smaller enemy fleets would turn and run rather than fight the larger British fleets. Ships that fled from battle were called "flying foe." By 1755, the British had a set of additional fighting instructions that included the new command of "General Chace" [sic]. This let captains in the fleet use individual initiative when chasing a flying foe.

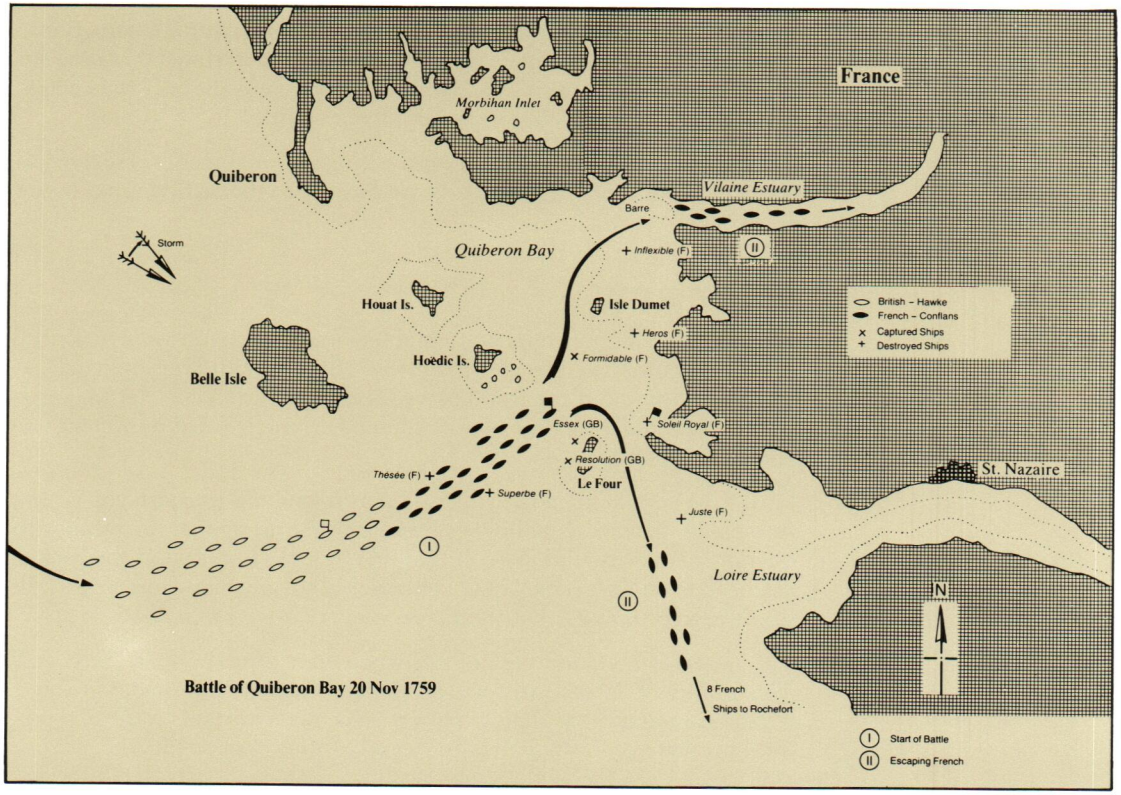
The Seven Years' War began in 1756, with Britain and France the two major sea powers and arch-rivals, and involved such legendary leaders as Hawke, de Grasse, Howe, Bonaparte and Nelson.

While France was preparing to invade Britain, the Royal Navy took the offensive by capturing French Guadaloupe in the West Indies. Another British victory gave England control of Canada, and three other successful battles at sea made it a good year for the Royal Navy. One of these involved Sir Edward Hawke.

The 14th of November, in Torbay as we lay,
Bold Hawke did hoist his flag, sir, and came on board that day.
Kind Neptune did protect us, with a sweet and pleasant breeze
We hoisted up our topsails, to cross the raging seas.
(Hawke's Engagement)

Hawke had been holding a tight blockade on Brest, France when a storm hit. As soon as Hawke left to seek shelter, the French fleet sailed for Quiberon to pick up an invasion army, but Hawke was close behind. Conflans, the French Admiral, came upon a small squad of British frigates and gave chase. Suddenly he saw sails to the west. It was Hawke's, and his line was led by Lord Howe on the Magnanime.

Conflans tried to make a run for it but Hawke, in his flagship Royal George, broke from rigid formal tactics and ordered General Chase. His fleet was no longer restricted to holding their position in a line of battle and could race after the enemy with their best speed.

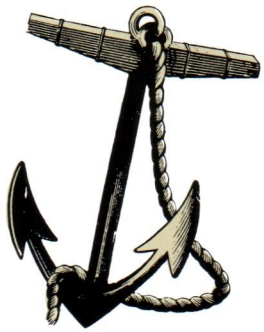


From "A History of War at Sea", Naval Institute Press, 1975. Used by permission.

Admiral Keppel in the Torbay sank the French ship Thesee which took with her Conflans' best captain and 600 men. Keppel sent out lifeboats but, because of the rough weather, there were only 22 survivors. Two more French ships went down, but by now the water was too rough to send lifeboats. Soon, the French ship Formidable was captured and night fell.

In unfamiliar waters at night and with a strong wind blowing toward enemy shore, Hawke ordered his fleet to drop anchor. Morning came and Conflans tried to make a run for it. He ran aground, ordered his ship burned and escaped to shore with his crew.

Twenty-three British ships had chased twenty-one French ships and defeated them in French waters. The French lost seven vessels and 2,500 men, while the British fleet lost only two ships and saved their crews. It was a humiliating defeat for the French, demoralizing their navy and ending their hopes for an invasion of England.



Before Hawke's decisive victory at Quiberon Bay, fleet encounters at sea were often indecisive. Gunfire was exchanged, honor was satisfied, but little was achieved. This was largely because of the Fighting Instructions which demanded that ships stay in their line. Stiff punishment awaited any Admiral who broke that rule. Chasing a flying foe was the only time when Admirals or captains could show initiative in battle.

Hawke was the first to deviate from these rigid formal tactics. He lived to see many of his captains from Quiberon Bay rise to the highest ranks in the Royal Navy.

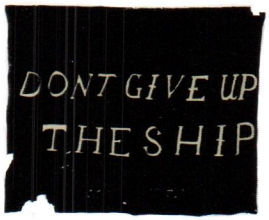
THE CREW

Getting and training crews was a problem for most countries. The British had the largest Navy and enlisted many sailors from their fishing and merchant fleets. But the Royal Navy's requirement to keep Her Majesty's Ships manned during time of war, caused her to rely on impressment to complete the crews.

Press gangs would roam the streets of port towns and recruit men any way they could. The more gullible could be talked into signing on a ship with tales of excitement and glory. If that didn't work, a whack on the back of the head with a big stick would. Theoretically, only men familiar with the sea were to be pressed, but the gangs were not always that choosy.

The streets of London were not safe when press gangs were on the prowl. The legality of impressment was challenged from time to time, but the Crown's argument was that its right to issue press warrants was based on royal perogative. It was generally viewed as a necessary evil.

One of the most effective methods of impressment was called the "sweep." The sweep consisted of getting together as many press gangs as possible and sweeping an area as quickly as possible. They would grab as many men as they could and whisk them away. Sweeps were organized in secret and performed during the dark of night.



They always come in the night,
They never come in the day.
They always come in the night,
and steal the laddies away.
(A Woman's Lament, 1785)

Once pressed, these reluctant sailors could find themselves on a huge ship-of-the-line for the next six years. They would eat and sleep deep in the ship, below the waterline, where the odor of rancid cheese mixed with the smell of bilge water. In times of battle, the dinner table would serve as the surgeon's table. It was hard to distinguish the gravy stains from the blood stains.

Disease was more of a threat to a sailor's life than battle. With a monotonous diet and terrible sanitary conditions aboard ship, scurvy and intestinal disorders were rampant. During the Seven Years' War, the Royal Navy lost 1,500 men in action — but 100,000 died of disease.

The British had the best trained officers of any country. They earned their positions by working their way up the ranks, and using constant drill and practice, they built the most efficient crews possible.

The French officers did not earn their rank but were chosen because of their social position. They spent most of their time blockaded in port and had little time for training at sea.

Building crews was a problem for the French navy for several reasons. France's manpower was drained during their revolution, and the navy had to compete with Napoleon's army for men, who needed every man he could get for his European campaigns. As the poorly trained and undermanned French navy lost battle after battle to the British, their confidence and pride deteriorated.

The Spanish navy spent most of its time blockading ports. The nearly broke Spanish monarchy could not afford to keep its ships fully manned. When needed in battle, trained officers had to go to sea with raw recruits who had been pressed into service, often just before sailing.

Crews were not a problem for the American navy. They had a small navy with high pay, short enlistments, good food and comparatively moderate discipline. The captains could choose from a surplus of volunteers.

USHANT 1778

You gentlemen of England, that live at home at ease,
Full little do you think upon, the dangers of the seas:
Give ear unto the mariners, and they will plainly show,
The cares and the fears, when the stormy winds do blow!
(Neptune's Raging Fury)

After 19 years of construction, the mighty British warship Victory was finally ready in 1778. She would lead the British defense fleet and serve as flagship to Admiral Keppel.

At 53, Keppel was young for an Admiral of the Royal Navy. He had risen to power early in life. When he was only 34, he had commanded the Torbay at the battle of Quiberon Bay.

Leaving port, Keppel sent his faster frigates out ahead and then followed with his 21 ships-of-the-line. Five days later the British frigates returned with two French frigates and a corvette close behind. The corvette turned and ran, the first enemy frigate was sunk and the second was captured. From papers aboard the captured frigate, Keppel learned that a French invasion fleet consisting of 32 ships-of-the-line and a combined force of 3,000 guns was heading towards England.

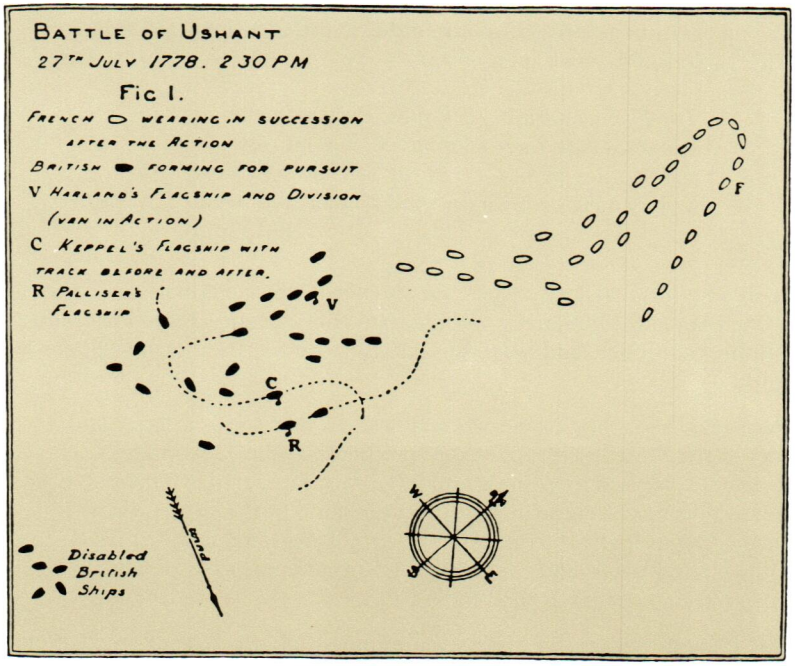
Keppel was no fool. He knew he was outclassed and outnumbered. Dashing to the nearest port, he pleaded with the Lords of the Admiralty for reinforcements, and soon had 30 ships-of-the-line under his command.

About 100 miles off the French coast near Ushant, Keppel saw the French fleet. Their row of sails seemed to strech for miles. Looking downwind as dawn broke the next day, he was shocked to see that the French fleet was gone! He then realized what had happened. During the night, the French fleet had circled and now they held the weather gauge! However, Keppel was now between the French and their home port. For a damaged French ship to run for home, she would first have to penetrate the British Line.

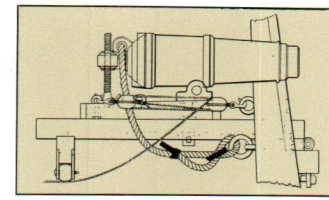
Keppel made the first move. He saw two French stragglers that were still downwind from his rear. Two British ships broke out of the line after them. Keppel hoped the French Admiral would try to rescue the stragglers and lose his position. Instead, the stragglers turned and sped for home. Now both sides had the same number of ships.

For three days, the French held their position, until a black squall rolled over the French fleet and then hit the British fleet. Keppel lost sight of his enemy. An hour later, when the storm ended, his visibility improved and he saw the French fleet sailing straight towards him! The French learned during the Seven Years' War that they couldn't stand up to the British. So, instead of a formal attack, the French Admiral, D'Orvilliers, tried a new hit-and-run tactic. He planned to strike quickly at the British sails and then run away.

Both sides took a beating. After the two fleets passed and the cannonfire stopped, Keppel frantically began to reform his line. An hour later, he had his van and center together. The rear had suffered the most damage and it wasn't until dark that the the rear arrived to complete the line.



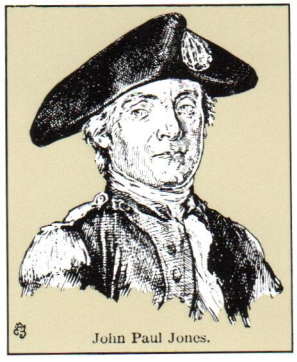
During the night, Keppel could see the lanterns of the enemy fleet. Copying the French maneuver, he tried to circle around the French fleet during the night. At dawn Keppler saw that he had been tricked again. The lanterns were on only three ships. The rest of the fleet had slipped away in the dark and sailed back to France. There was no way Keppel could catch them so he turned towards England.



The new French tactics were quite successful. In their smaller and faster ships, the French would rake British sails and rigging and then run away. The stiff, powerful Line of Battle was useless against this tactic. Once again, it was time for the British to rethink sea tactics.

Meanwhile, several technical improvements were upgrading the British navy. Copper plating was being added to ship's hulls to keep them clean and smooth, increasing speed and decreasing the need for dry dock repairs. Cannons now had flintlock firing mechanisms to replace the dangerous matches, and carronades had been added to their arsenal. Carronades were heavy cannons, highly effective at short range. Signalling had also been improved in a new book of signals by Howe and Kempenfelt.

FLAMBOROUGH HEAD 1779


John Paul Jones.

At the start of the Revolutionary War, the colonists desperately needed a navy, and the quickest way to build one was to convert merchantships. There were several thousand vessels to choose from, but most were small and none were ideally built for combat. Real warships were needed to stand up against the British, so late in 1775, the Continental Congress decided to build thirteen men of war.

An American frigate, called the Richard by name,
Mounted guns forty-four, out of L'Orient came.
For to cruise in the Channel of old England's fame,
With a noble commander, Paul Jones was his name.
(Paul Jones)

British admirals had little respect for the newly formed American Navy, but one man gave them more trouble than they bargained for. That man was John Paul Jones, and his most famous battle was in England's home waters.

Jones began his sailing career when he was 13. His job as a slaver and a trader in the West Indies was cut short when he killed a seaman in self-defense. He fled to Virginia and in 1775, volunteered as a lieutenant in the newly formed American Navy. In command of the 18-gun sloop, Ranger, he terrorized British waters, seizing British merchant ships, raiding coastal towns and capturing the Royal Navy's sloop, Drake. The British referred to him as the "Yankee Pirate."

In 1779, Jones was on the frigate Bonhomme Richard. It was named after "Poor Richard's Almanac" which had recently been written by his friend, Benjamin Franklin. He spotted a convoy of 41 British merchant ships under the protection of the Serapis, one of the newest and most powerful frigates in the British fleet.

A crowd of Englishmen watched the battle from the chalk cliffs of Flamborough Head on the Yorkshire coast. Captain Pearson of the Serapis clearly had the advantage with more firepower. But Jones had the weather gauge and he slowly advanced toward her. Using a trick that would later be re-enacted by Erroll Flynn in the film "Captain Blood," Jones flew a British flag. When he felt he was close enough, Jones lowered the British flag, raised the Stars and Stripes and sent a powerful broadside into the Serapis. The Serapis answered immediately with a broadside of her own which ripped into the Richard's hull and set off powder charges that destroyed crew and cannons.

Under another leader, this might have been the end of the battle but Jones performed a brilliant maneuver. Backing off the sails, he turned the Richard across the Serapis' stern and raked her with his remaining guns.

Now at close quarters, Jones tried to board the Serapis, but his crew was being slaughtered by the British marines. Pearson called out to Jones, "Has your ship struck?" Jones replied, "I have not yet begun to fight!"

Jones managed to get the grappling hooks on the Serapis and, locked side by side, the two ships' cannons fired again and again. Outgunned, the Richard seemed ready to sink when one of Jones' men managed to board the Serapis and dropped a hand grenade into her powder cartridges. The explosion killed 20 men and destroyed half their cannons, but still they fought on. Jones manned a cannon whose crew had been killed and fired it repeatedly into the Serapis. Finally, Pearson surrendered and offered his sword to Jones. Instead, Jones invited Pearson into his cabin for a glass of wine.

For three and a half hours, John Paul Jones had outmaneuvered and outfought one of the Royal Navy's best captains in one of its finest ships. Later, a British court could find no fault with the performance of Pearson and knighted him for gallantry. When Jones heard of this, he said, "Should I have the good fortune to fall in with him again, I'll make him a Lord!"

JOHN CLERK

In 1782, John Clerk, a Scottish merchantman with no experience at sea, wrote his "Essay on Naval Tactics." He realized that the greatest weakness in the line formation was its dependence on enemy cooperation for success. The French frequently took advantage of this weakness with their hit and run tactics. Clerk decided that the line, which worked so effectively in the past, was becoming outmoded, "the Fighting Instructions were a dead hand and the line of battle was a fetish."

Instead of the line formation, Clerk favored more independent action. But, the main point of his essay was to concentrate the fleet. "By concentrating your force against one part of the enemy fleet, you could crush it with superior numbers, directing the greater part of the force of the fleet against a few ships, either in the van or the rear." It was simple, clear and effective. The navy would now concentrate on a part of the opposing fleet, using all of its ships against a few of the enemy's. Since a ship might take 30 minutes or more just to turn around, the enemy's rear could be attacked and destroyed before the leading ships could double back.

Since a ship's crew could only man one broadside at a time, Clerk recommended cutting through the enemy's line and attacking from both sides taking advantage of this weakness. The enemy would be defenseless against the second ship.

THE BATTLE OF SAINTS 1782

It was on the 9th of April,
just at the break of day.
We spied these lofty Frenchmen,
at Dominica lay.
(The Saints)

Among the first to use Clerk's concepts in battle was Admiral Rodney. Britain had recently lost her American Colonies in the revolution and was still hostile to France. A French fleet of 33 ships, commanded by Admiral de Grasse were under sail with orders to take Jamaica from the British.

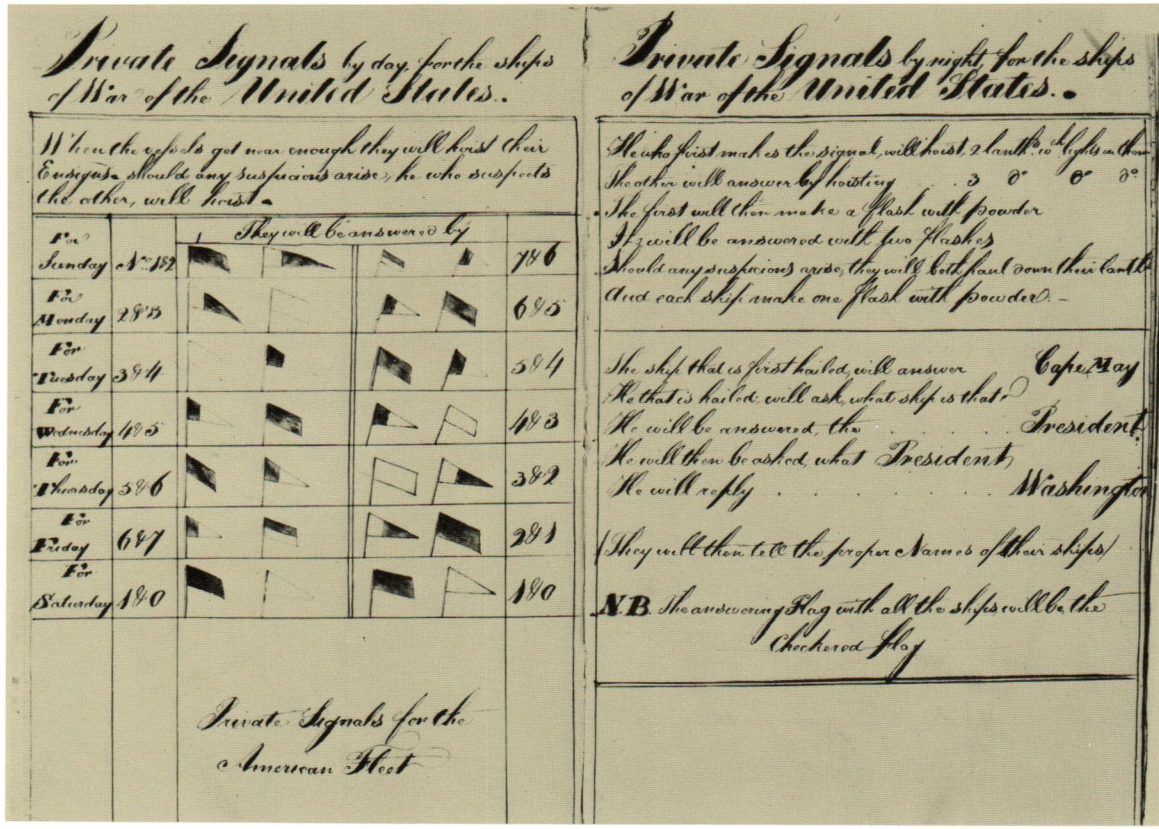
Commanding a fleet of 36 ships, and leading in his flagship, The Formidable, Rodney met de Grasse as the French fleet turned north. During the next four days, the French lost two ships due to collisions while the British stayed right on their tail. Between the islands of Guadaloupe and Dominica, De Grasse found himself in a trap. The wind wouldn't let him pass between the islands. His only open route was to the south near the Iles des Saintes, past the British fleet!

Knowing the British would aim at his hulls, de Grasse planned to sail past the British fleet as quickly as possible and then run with the wind. As they went past, the French would aim at the British rigging, stopping Rodney from giving chase.

Both fleets formed a tight line. The French fleet turned about and the British turned to meet them. With the wind advantage, the French filed by the British on a southerly course. At first, things went just as de Grasse had planned, but suddenly the wind shifted. To avoid stopping dead in the water, the French center and rear had to break ranks, causing gaps in the French line. It was the perfect opportunity for Rodney to test Clerk's theory.

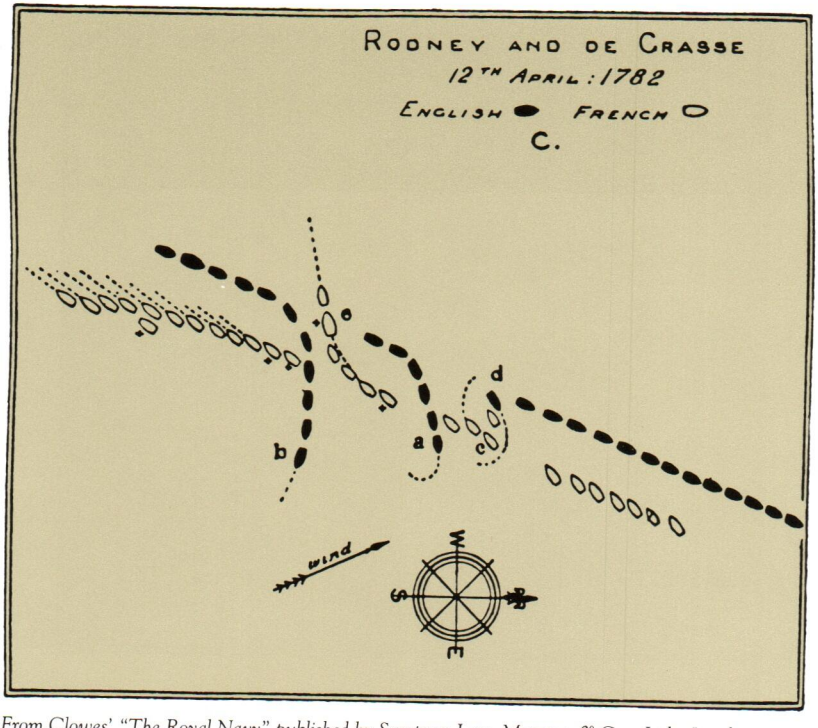
VIRGINIA
CAROLINA SOUNDS
BAHAMA ISLANDS
NASSAU
WEST INDIES
JAMAICA
GUADELOUPE
ISLE DES SAINTES
Battle of the Saints
DOMINICA

Breaking with tradition, the Formidable turned into the wind, and cutting through an opening in the French line, she demolished the French ship Glorieux with her carronades. Rodney did not fly the flag signal for cutting through the enemy line: it had never been done before, and there was no appropriate signal in the book.



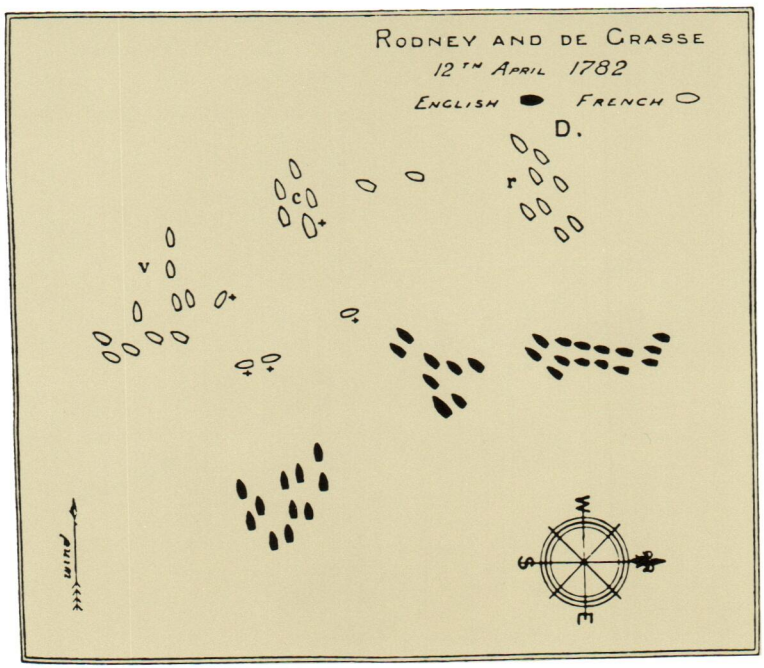
Two pages from Captain John Barry's Signal Book, courtesy of the New-York Historical Society, New York, New York.

Now the question was whether the rest of his line would break with tradition and follow. The Bedford cut through another opening, followed by the entire British rear! These ships joined with the Formidable and hit the French line on their unprepared side. Then Rodney, using another of Clerk's theories, concentrated his force on small groups of ships in the disorganized French line.



From Clowes' "The Royal Navy" published by Sampson Low, Marston & Co., Ltd., London.

French ships began to surrender, and the shark-infested waters turned red as the French dead were dumped overboard. Rodney ordered his armchair brought on deck, sat down and ordered a lemonade. The catch of the day was the French flagship, the Glorieux. De Grasse struck his colors, and Rodney boarded to accept the French surrender.



The Battle of Saints introduced a new concept in naval warfare, victory by penetration. Since it was the first victory after many indecisive battles, it began a new phase in naval warfare and established British power in the Caribbean.

THE GLORIOUS FIRST OF JUNE 1794

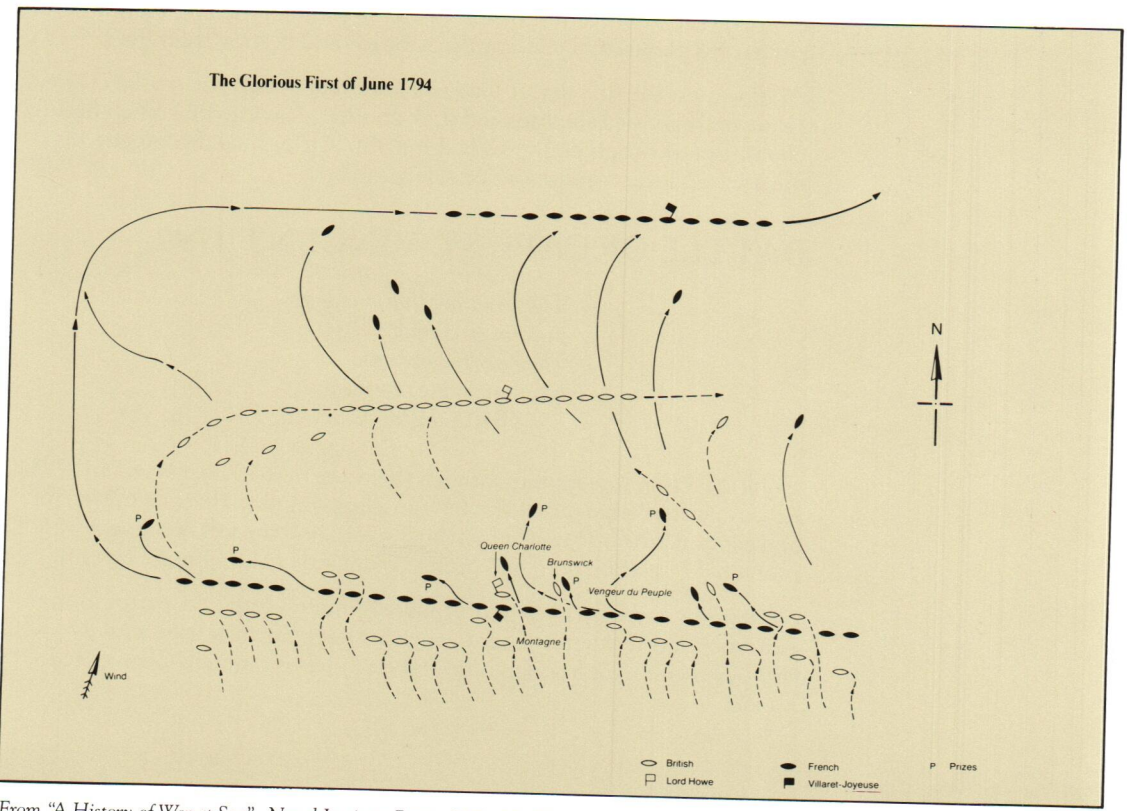
At last the glorious day, call'd the 1st of June,
So well I do remember, it was about noon.
We to windward of them lay, and down to them we bore away,
Resolv'd our courage to display, like brave British boys.
(The 1st of June)

In 1794, a large grain convoy left the American colonies enroute to France, where it was badly needed. It was escorted by four ships-of-the-line under the command of Admiral de Joyeuse, who had been told that if the grain was captured, his head would be removed by a guillotine.

Lord Howe was an experienced Admiral who had fought at the battle at Quiberon Bay 35 years earlier. He commanded a 26-ship British fleet assigned to capture the French grain convoy. Patrolling off the French coast, he discovered that the French fleet had not yet left port. Deciding to sail west, Howe planned to capture the convoy first and deal with de Joyeuse later.

A week passed and Howe had not sighted the convoy, so he returned to the coast of France. He found the harbor empty, but soon learned of the French fleet's whereabouts and set off in pursuit. Three days later, Howe sighted the French fleet and saw 26 ships-of-the-line. Howe too, had 26 ships.

The French had the advantage of wind and held their position. They wanted to delay the British, since the convoy was passing to the south, out of sight. A small skirmish resulted in the loss of two French ships.



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The next day, Howe was determined to gain the wind advantage. Beating into the wind, he broke through the French rear, cutting off three French ships. De Joyeuse was not ready to engage and ran downwind instead of turning to fight. The British only lost one ship and gained the wind advantage, while the French lost four ships — but the convoy was still safe.

May 30th was a standoff, but de Joyeuse was joined by four more French ships. The next day, the fog cleared in the early afternoon, but Howe didn't make a move. He wanted a full day to battle the French and was willing wait. With that thought, he smiled and the news spread through the fleet. Because of his dark complexion and stern face, Howe's nickname was Black Dick; and when Black Dick smiled, his men knew he had a plan.

Normal procedure would have been for the British to move forward and fight from a distance, as the French shot at their masts and backed off. Howe's plan, however, was to attack at dawn with all ships bearing down on the French fleet at full speed. Breaking through the French line at all points, his plan would prevent their escape and destroy their fleet.

At dawn, on the first day of June, he attacked. When the smoke cleared, Howe had captured six ships and sunk another, leaving the French fleet in chaos. But although de Joyeus had lost the battle, he did complete his mission, and the convoy arrived safely in Brest.

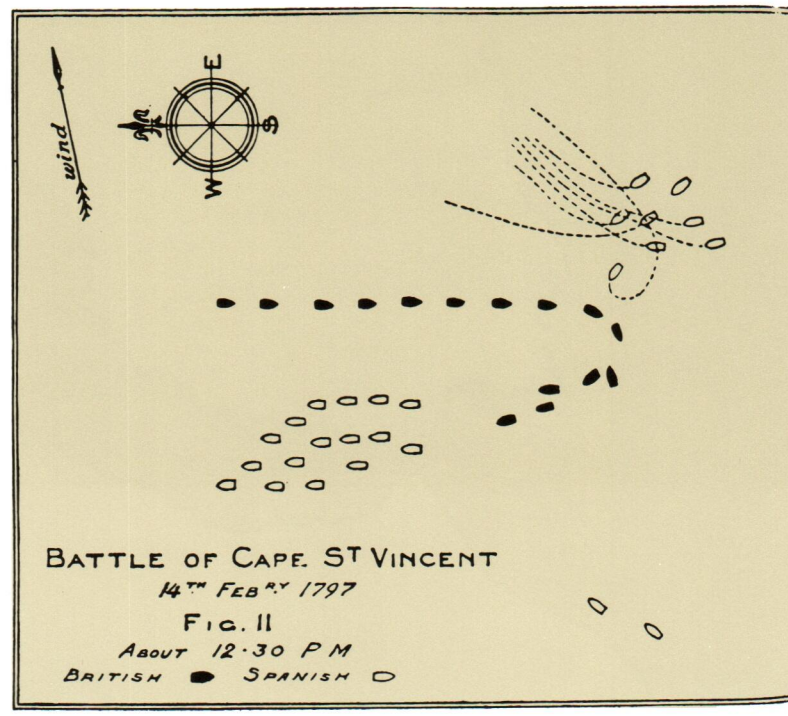
BATTLE OF CAPE ST. VINCENT 1797

They, not heedful of orders,
in courage confide;
The best line of battle
is a thundering broadside.
(Battle of St. Vincent)

Horatio Nelson rose rapidly through the ranks of the Royal Navy. In 1793, he was put in command of the 64-gun Agamemnon. He soon outfought and captured the 80-gun Ca Ira near Toulon, and the following year was promoted to commodore and put in command of the 74-gun Captain.

Nelson was part of a 15-ship fleet under Admiral Jervis on patrol in the eastern Atlantic when they came upon a huge Spanish fleet with 27 ships-of-the-line. Although outnumbered, Jervis immediately ordered attack!

Not having had time to form a line, the Spanish were bunched into two groups of ships. Cutting through the gap, the British line fired broadside after broadside into the larger group. Jervis intended to come about quickly and finish off the damaged vessels before the rest could join them.



From Clowes' "The Royal Navy" published by Sampson Low, Marston & Co., Ltd., London.

Instead, just after the last British ship went through the gap, the two Spanish groups began to stretch toward each other trying to form a line and bring their full strength to bear. Nelson was near the end of the British line and saw what was happening. He broke out of the line and reversed course, intending to stop the Spanish from reorganizing their fleet.

It was a brilliant tactical move and an act of unprecedented insubordination. In the Royal Navy, you followed your admiral's orders. But Jervis saw the wisdom in the move and ordered two more ships to follow. Nelson suddenly found himself in close action with seven Spanish ships including the massive 130-gun flagship, Santisima Trinidad. As his ship was collapsing around him, Nelson smashed into the San Nicolas and boarded her. Fighting his way onto her decks, Nelson quickly forced her surrender.

Then, Nelson saw that the San Josef had tangled rigging with the San Nicolas during the melee. Rallying his men, they boarded the second Spanish ship and forced her surrender!

When it was over, four Spanish ships had been captured, the rest of her battered fleet had made a run for it, and Nelson was made an Admiral.

A few months later, Nelson's right arm had to be amputated after being shattered by a musketball.

Barely 5 feet 7 inches tall and 130 pounds, Nelson suffered from fevers brought on by malaria he had picked up in the Caribbean. Cold nights at sea would start him coughing and irritate the rheumatism in the stump of his right arm. Some said he could forcast the weather by the way his stump felt. His men called it his "fin" and could tell his mood by the way he wiggled it. Attacks of gout and nervousness would rarely let him sleep more than two hours at a time. Most of the time at sea, he was seasick and before a battle he would get terrible headaches. He lost the use of his right eye when a piece of stone hit it during cannonfire. But this one-eyed, one-armed, skinny little man was transformed by battle into a fearless leader and a tactical genius.

THE NILE 1798

Come, all you British sailors bold, and listen to my song:
It's well worth your attention and I will not keep you long;
It's of a British squadron that sailed the other day,
Commanded by Lord Nelson on the twenty-ninth of May.
(The Battle of the Nile)

Napoleon Bonaparte felt that Britain was the only country that could stop his domination of Europe, and the best way to hurt Britain was through her richest colony, India. Although Napoleon preferred sitting high in a tall horse's saddle to standing on the quarterdeck of a flagship where he could barely see over the railing, he felt his navy was the key to Britain's defeat.

His fleet of 13 ships-of-the-line and 42 frigates planned to escort French troop carriers across the Mediterranean. With 55,000 armed soldiers, he would conquer Egypt. Then, traveling by land, he would take India before the British could react.

It was a top secret operation and only Napoleon and a few of his fleet officers knew of the plan. But it had its risks. His ships and officers were inferior to the British and they were slowed down by the troop transports.

His first stop was Malta. By controlling Malta he could control the eastern half of the Mediterranean. Leaving a force there, Napoleon sailed on to Alexandria on the coast of Egypt.

A group can move only as fast as its slowest unit. The slowest unit in Napoleon's convoy could do only 3 knots. It would take over two weeks to reach their destination. The first few days, Napoleon spent below deck, seasick. As they crept along, fast French frigates patrolled the area looking for the inevitable British.

Admiral Nelson was assigned to find out what Napoleon was up to. He thought the French destination might be Sicily, but nearing Sicily, a passing ship told him that the French had captured Malta. Calling his captains together, he asked what they thought. The consensus was that Napoleon was going to Egypt. One captain even suspected that after Egypt, the French would go on to India. Nelson sailed in pursuit.

Nelson planned to try a new tactic. He would break his fleet into 3 parts. Two sections would hit the French from different angles, scattering them, and would then concentrate on stragglers. The third part would pick off the transports.

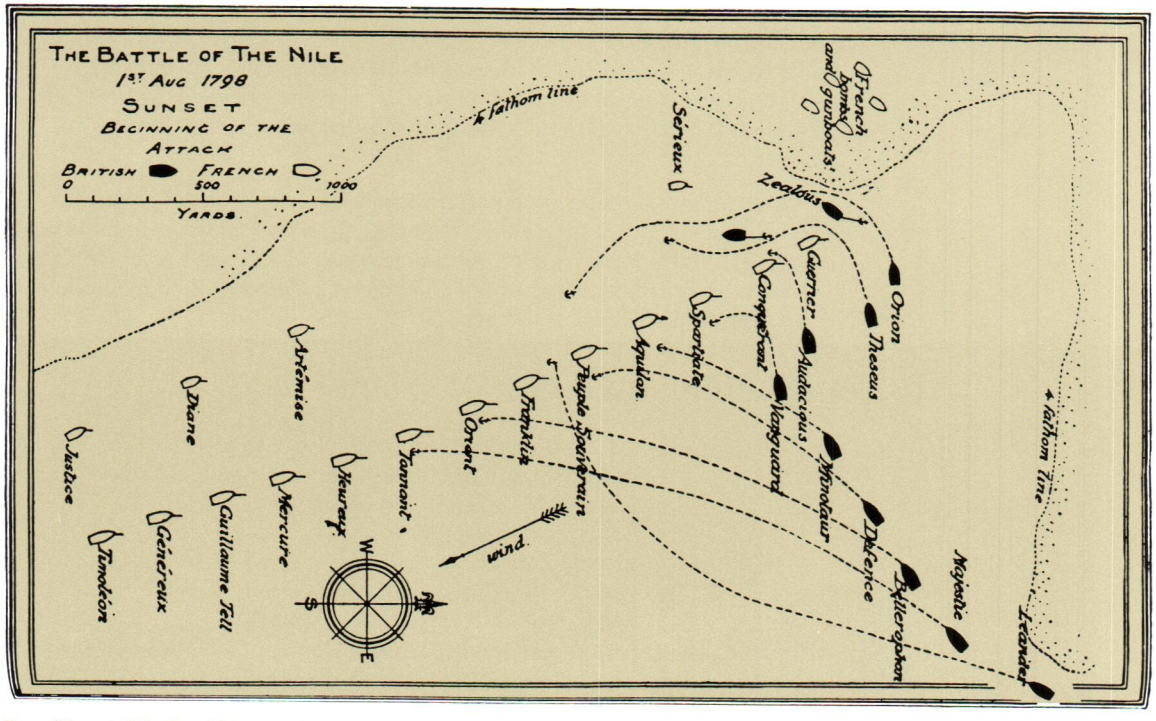
In a fog, Nelson's fleet sped by the French fleet without seeing them. When he arrived at Alexandria he thought he had made a mistake when there was no sign of the French. What if they had sailed west and were enroute to the English Channel? He turned his fleet and raced back the way he had come.

Napoleon arrived two days after Nelson left. Soon, Nelson got word that the French fleet was indeed in Alexandria. So he turned once more and raced back to Egypt where he found the French fleet at anchor in Aboukir Bay, near the mouth of the Nile.

Nelson called his captains the "Band of Brothers," and held regular meetings with them, treating them as equals and respecting their opinions.

But most of all, he let them know that individual initiative during battle was not only permitted but encouraged.

Admiral Brueys was in command of Napoleon's fleet in Alexandria. Anchored in a solid line with one side to the shore, the French fleet seemed impregnable. The British approached from the northwest with the wind advantage. Foley, one of the "Brothers," saw that there was enough deep water between the French fleet and the shore for a ship to pass through. In his ship, Goliath, Foley crossed the bow of the first French ship, raking her. Coming around the line, the Goliath turned and slipped between it and the shore and emptied another broadside into her unprepared side. Then Foley anchored beside the second ship.



From Clowes' "The Royal Navy" published by Sampson Low, Marston & Co., Ltd., London.

Meanwhile, Nelson and his captains adapted their tactics to the situation. Nelson led the attack on the enemy's port side. Half of the Brothers followed Nelson and the other half followed Foley. This double envelopment resulted in the van and center of the French line being surrounded and attacked from both sides. The entire British fleet was concentrated on the forward half of the French line!

Brueys's flagship, the Orient, was in the center of the line and under heavy attack when a piece of shrapnel hit Brueys' head, another shot hit him in the body, and a cannon ball ripped off his left thigh. But he refused to go below and ordered his aides to prop him up against a chest, where he continued to give orders until he died from loss of blood.

Nelson was hit over his left eye, resulting in a three inch cut that laid open the skin and caused it to fall over his one good eye. Nelson thought he had gone blind and was dying, but after being bandaged by the ship's doctors, he returned to the deck.

By then, the French van was smashed, and most of the French fleet was on fire. Smoke was everywhere. Suddenly, in a huge erruption, the French flagship, the Orient, exploded. But the battle continued through the night.

By morning's light, the battle was finally over. Six French ships had surrendered, four more had run aground, and their flagship had exploded and sank. Although most of the British ships were damaged, none was lost.

This was one of the most important naval victories of the 18th century. The tactic of enveloping a fleet at anchor from both sides was simple but original. It was Nelson's style of command and his faith in his captains that made the British victory possible. Napoleon suffered his first major defeat and his army was cut off in Egypt.

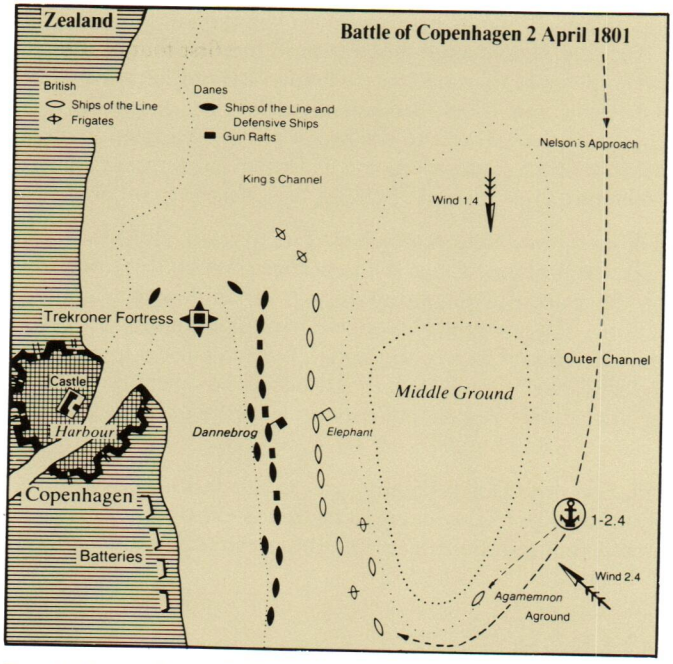
COPENHAGEN 1801

All bright, in April's sun shone the day,
When a British fleet came down,
Through the islands of the crown,
And by Copenhagen town,
Took their stay.

(Copenhagen)

By 1800, the situation between Britain and Denmark was getting tense and Nelson, much to his chagrin, was sent to the Baltic. He didn't like the cold and he didn't like Admiral Sir Hyde Parker, whom he was to serve under. Their fleet was powerful however, with 26 ships-of-the-line and 7 frigates. But Denmark had 28 ships in the Baltic, and her ally Sweden had 12 more. Parker's plan was to move swiftly and strike at Copenhagen harbor before the enemy could mass their fleets.

When they arrived, the situation was similar to what Nelson had encountered at the Nile. Twenty-five ships were tightly packed in a line along Copenhagen harbor, but there was less room for maneuvering than there



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was at the Nile. There was no room for a British ship to pass between the enemy line and shore, and in front of the enemy line was a narrow channel and a sandbar.

To attack the Danish fleet, the British would have to sail into the channel between the sandbar and their enemy to get into position. The British van would be hit by the fire of every Danish ship as they ran the gauntlet. The Danish fleet felt that they were in an invincible position, but Nelson took one look at the situation and volunteered to lead an attack. Since the largest British ships would run aground in the channel, Parker would wait outside the harbor and deal with any enemy ships that might try to escape. Nelson would take the lighter ships and carry out his plan.

Since the enemy fleet was anchored and had no room to maneuver, Nelson had an advantage: because he knew the enemy position before the battle began, he could plan every attack maneuver in advance. He compared the firepower of each of the enemy ships to each of his ships and his resulting plan was typical Nelson, simple but brilliant. It could be described in one word: leapfrog.

There was just enough room between the enemy line and the sandbar for two of his ships to pass side by side. Nelson would line his ships up in an

order that would give each one its best opponent based on firepower. Then, his first four ships would anchor across from the first four of the enemy. His next ship would then pass safely behind his brothers and engage the next enemy, and so on until his entire fleet was engaged. British ships would only be exposed to the fire of a few Danish ships while getting into position. Once in position, the 12 British ships would be in range of only 16 enemy ships instead of 25. At least that was the plan.

With the wind behind him, Nelson attacked. The first four ships took their position exactly as planned, but the next three British ships ran aground. Nelson reformed the remaining ships as Parker flew the signal to "discontinue action." This agitated Nelson and his stump started wiggling. When his lieutenant asked if he saw the signal, Nelson put his spyglass to his blind eye and said "No." One British frigate decided to abandon Nelson and obey Parker. As it tried to escape, its captain was killed when a Danish ship raked it.

Nelson persisted. Soon the Dutch flagship was on fire and struck her colors. Other Danish ships followed, and a truce was eventually struck. England had greatly reduced the threat from the north and could now concentrate on France.

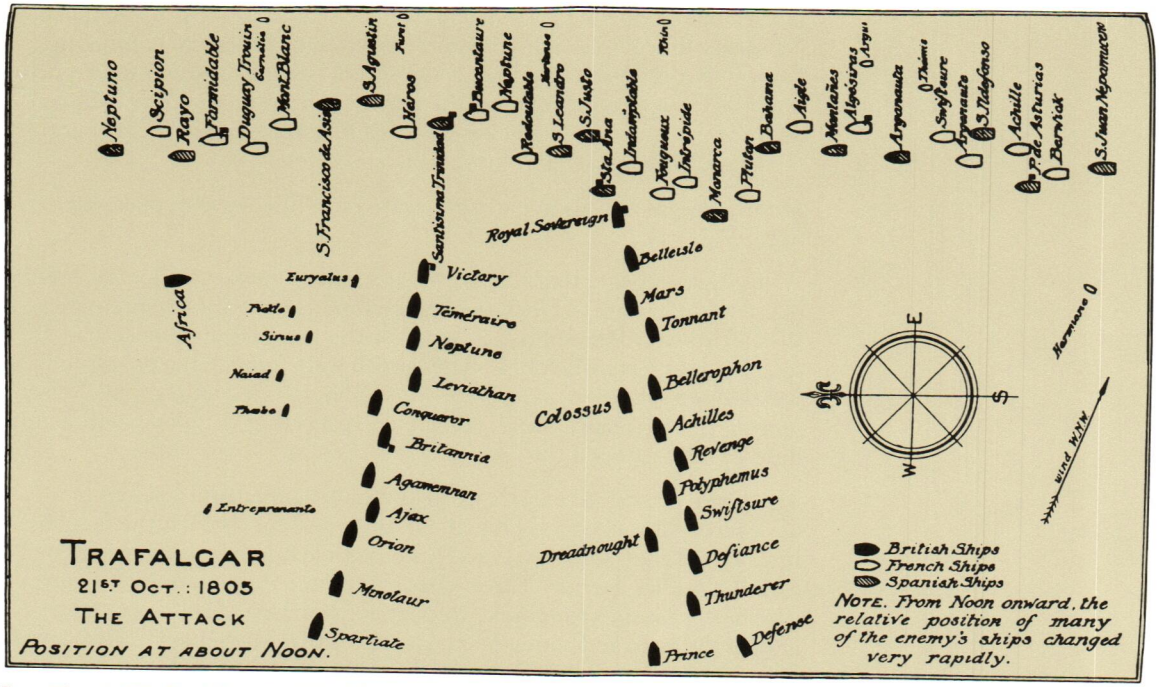
TRAFALGAR 1805

> *Now drink a health to gallant Nelson, the wonder of the world,*
> *who, in defence of his country, his thunder loud has hurled;*
> *And to his bold and valiant tars who plough the raging sea,*
> *And, who never were afraid to face the daring enemy.*
> (A Song on Lord Nelson)

When Britain heard what happened at Copenhagen harbor, Nelson succeeded Parker as Admiral of the Fleet, and was put in charge of the sea defense of England. But he was tired and sick and simply wanted to go home.

Napoleon's Grand Army was massed at Boulogne on the French side of the English Channel. All the French had to do was gain a temporary safe zone across the channel and Napoleon could invade England!

Napoleon's plan was of grand proportions. Every available French ship would sail to the Mediterranean. Joining with Spanish ships, they would form a huge Armada led by Admiral Villeneuve. Sailing around Spain and up the coast of France, the Armada would form a safe zone across the English Channel. Then, Napoleon would lead his Grand Army through the safe zone and invade England.



From Clowes' "The Royal Navy" published by Sampson Low, Marston & Co., Ltd., London.

Nelson was put in command of the mighty flagship Victory. He had been a child when Hawke commanded the Victory at Quiberon Bay. A Dutch cannon during the 17th century had a range of about 2,000 yards. The Victory's range was about 3,000 yards, and she was nearly twice as fast as a galleon of the Spanish Armada. She became Nelson's home and he rarely left her.

Nelson had a large fleet but the French fleet was even larger. Nelson felt that a day was too short to form so many ships into the usual line of battle. Instead, he would divide his fleet into three parts: two squadrons of his strongest ships would hit the French line at two points. One squadron, led by Collingwood, would cut behind the French center and attack its rear. The other, led by Nelson, would cut behind the French van and attack their center. This would result in two separate battles, each with the British fleet outnumbering their enemy. By the time the French van could get turned around, the rest of their fleet would be destroyed.

A third squadron of his smaller faster ships would be held in reserve and used where needed.

It was a bold, original idea that could only be carried out by an Admiral of Nelson's caliber. To sail directly into French broadsides was contrary to tactical theory. While the British ships were bearing down on the French line, the French could fire upon them without fear of return fire . Nelson's desire to get into action quickly gave this advantage to his enemy but the "Band of Brothers" agreed with his plan completely.

Months passed as Nelson patiently waited for Villeneuve to make his move.

When Nelson heard that Villeneuve was sailing, he headed for the Straits of Gibraltar hoping to block the French from leaving the Mediterranean. When they met, Nelson had 27 ships-of-the-line and the French had 33 including the Spanish vessels. The French were formed in a proper line, with Nelson's division on one side and Collingwood's on the other. Nelson sent his fleet a signal. It said, "England expects that every man will do his duty." Then he raised the flag for "Close Action."

The battle progressed exactly as Nelson had planned and resulted in a devastating defeat for the French. Collingwood cut through the French line behind the Santa Ana, fired his broadside into her stern and then came up on her lee side. Three more ships came through the same gap. The rest of his squadron broke through further down the line or came around the stern and chose their own opponents. The skilled English crews fired their guns twice as fast as the French.

While pacing the quarterdeck of the Victory, Nelson was hit by a sniper's bullet and died three hours later. Before he died, he was told that 18 of the enemy ships had struck their colors and another was burning out of control. Villeneuve and his staff were their prisoners. Nelson died in his finest hour. His last words were "Thank God, I have done my duty."

Once more the hero of the Nile, did seek to make Britannia smile,
with another victory on the file,
O brave Nelson!
He broke their line of battle, and struck the fatal blow;
He blew some up into the air, and some he sent below.
But then with victory on his side, a fatal ball his life destroyed,
He in the midst of glory died,
O brave Nelson!

(Trafalgar)

One of the greatest naval battles of all time, the battle of Trafalgar was the last major battle involving ships-of-the-line. After 200 years of steady development, the warship had evolved from the clumsy galleon into a formidable fighting machine. But the Age of the Fighting Sail was almost over. Self-propelled metal ships, torpedoes, missiles, aircraft and submarines would soon change the art of war at sea forever. But that's a story for another day . . .

But the best of friends must part,
fair or foul the weather;
Tip us your flipper for a shake,
now a drink together;
Don't forget your old shipmate,
Fol de Rol.
(Don't Forget Your Old Shipmate)

EPILOGUE

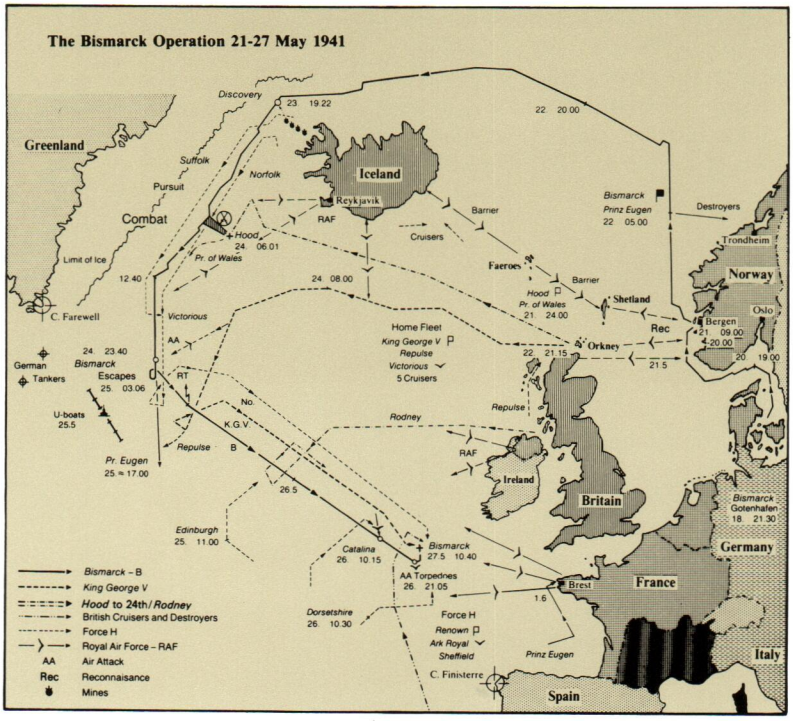
THE SEARCH FOR THE BISMARCK 1941

In May of 1941, London received a secret radio message that two large German warships had been spotted along Norway's south coast. RAF reconnaissance Spitfires spotted them anchored in a fjord near Bergen. One of them was an armored cruiser called Prinz Eugen, the other was a brand new battleship called the Bismarck. The Bismarck was bigger, more heavily armoured and faster than any British battleship.

Sir John Tovey was Commander-in-Chief, with a powerful British fleet under his command. The Atlantic was Britain's lifeline but in immediate danger of being cut off by a German submarine blockade. If the Bismarck could break out into the Atlantic, it could devastate British shipping.

The Suffolk and Norfolk spotted the Bismarck north of Iceland and radioed its position to the rest of the fleet. The Hood and the Prince of Wales were the closest and raced to the attack. The Hood was hit by the Prinz Eugen, broke in two and sank. The German ships now concentrated on the Prince of Wales. She was hit hard several times and finally had to retreat.

British ships from all over the Atlantic steamed toward the Bismarck to avenge the loss of the Hood. Tactics were being sent by radio signal from thousands of miles away. Meanwhile the Suffolk, Norfolk and the Prince of Wales continued to trail the German ships. Nine torpedo aircraft, called Swordfish, left the Victorious to join the attack. At least one torpedo hit the Bismarck but she escaped in the dark.



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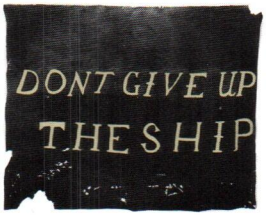
Nearly all the British ships had to go to Iceland for fuel. The Bismarck was next sighted 700 miles west of England, where she was overwhelmed by British ships. The Dorsetshire finally fired three torpedoes and the Bismarck heeled to port, turned bottom up and vanished beneath the waves.

To catch the Bismarck, the British used 5 battleships, two battlecruisers, two aircraft carriers, ten cruisers, twenty destroyers, and about 50 aircraft. The battlefield was 3,000 miles long and the tactics were controlled completely by radio.

HE SAILING WARSHIP



Up until the 1300's, archers, grappling hooks and luck converted ships of commerce into men-of-war upon need. But with the introduction of gunpowder it became possible to mount guns on merchantships, turning them into powerful warships. Consequently, the 14th century saw many seafaring nations applying this new technology by making minor changes to their existing trading ships.

During the 15th century, the pace of warship development stepped up considerably. The most noticeable change was the increase in number of masts and sails, as the one-masted, single-sail ships of the late 1300's gave way to triple-masted ships with three sails, within 50 years. By the end of the century ships with four masts and as many as eight sails were being built. Ships had also become quite large. By 1419 Henry V was building ships over 100 feet long: the Grace Dieu had a keel line of 125 feet and was more than 50 feet wide.

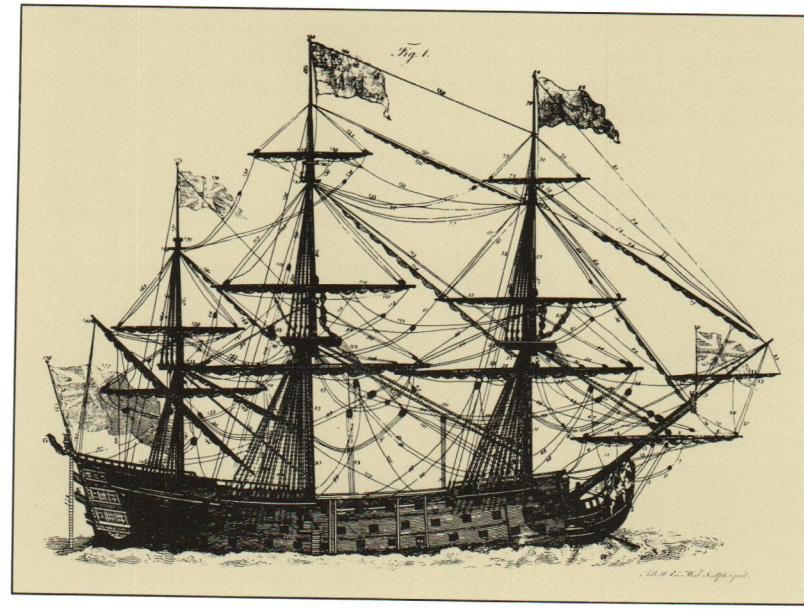
By the end of the century, moderate-sized ships, like Columbus' Santa Maria, had three masts, bowsprits and a complement of five or more sails. Shipwrights were always finding another place to hang a sail, and the start of the 15th century became a heyday of new sails: foresails, spritsails, mizzen, and a variety of lateen-rigged sails with names like "bonaventure." With better speed and construction — and with more trade being conducted by sea than muddy roads — it was perhaps inevitable that warships would also gain new innovations.

To protect ship's archers and give them a vantage point, towers were constructed fore and aft, which added dangerously to a ship's instability. At first, small guns were attached to the edges of the walls to add to the mayhem. But as the size of guns increased, the instability of heavy cannons perched high above the deck increased proportionally; furthermore the increasing range of the artillery made the archers less effective. Around 1501, French shipwrights discarded the fighting towers and mounted the cannons between decks with gun ports cut into the hull. Speed, maneuverability and stability increased dramatically.

Technology now hit its stride and a new ship design, the galleon, became the standard for fighting vessels. The galleon owed much to the Mediterranean galleys but it was a pure sailing ship and no longer had a ram attached to its bow. The keel became longer in relation to the beam, making for a faster ship, and the number of guns were increased to one or two tiers of guns running the length of the ship. By the time of the Spanish Armada,

Spanish merchantships were between 20 and 400 tons displacement, though the eventual victors were approximately 65 feet long with a displacement of 150 tons.

The first 50 years of the 17th Century saw the advent of "super-galleons" like the Prince Royal (1610) and the Sovereign of the Seas (1637). These ships had three decks of guns, with the Sovereign commanding over 100 cannons. The beginnings of the frigate class also became evident in the small packet ships that sprinted across the English Channel (frigates didn't remain small though; by Nelson's day even ships with three decks of guns were called frigates). During the 17th century, many naval battles were fought between enormous fleets composed of fast, maneuverable frigates and large, powerful ships-of-the-line. While frigates evolved into ships bearing over 100 cannons, ships-of-the-line became the battleships that formed the core of naval might until well into the 1830's.



"A First Rate Ship of War with rigging & at Anchor."

Ships built in the18th Century had more sails added, new rigging developed, and the steering wheel was first used by English ships in 1705. Halfway through the century the size of warships continued to grow and more cannons were added. No self-respecting Admiral would set to sea with ships-of-the-line mounting fewer than 60 to 64 guns, though the smaller two deckers still used as few as 24 cannons. These double-deckers

evolved into the frigates of Nelson's time. The "heavy frigates" Constitution (44 guns) and Nelson's Victory (100 guns, 1805) were responsible for some of the most legendary feats of seamanship of the time.

This was the swan song of the sailing men-of-war, however. By 1850, no pure sailing ships-of-the-line were being built, and iron and steam were replacing wood and canvas. The opening of the Suez Canal in 1869 made for shorter trips between coaling stations and pushed the great British sailing "China clippers," like Cutty Sark, from the tea trade to the Australian wool trade. Cutty Sark and Thermopylae set speed records through the Pacific, though the overall record belonged to the American Lightning (1854), which sailed 436 miles in a single day.

Ships were getting too long to be made of wood, and iron stepped into the breach. Steam and the screw propeller made their debut in tugboats, pushing wooden behemoths in and out of harbors. Paddle wheel steamers joined the British fleet in 1822, but iron and steel ships with propellers allowed large ships to mount the broadsides of the sailing ships. With the opening of the Panama canal in 1915, coal-fired iron ships had a world-wide advantage over the the sail-powered ships. World War I caused the loss of many sailing ships, and by 1929 the last sail-rigged ship in the British fleet, the Garthpool, was lost at sea.

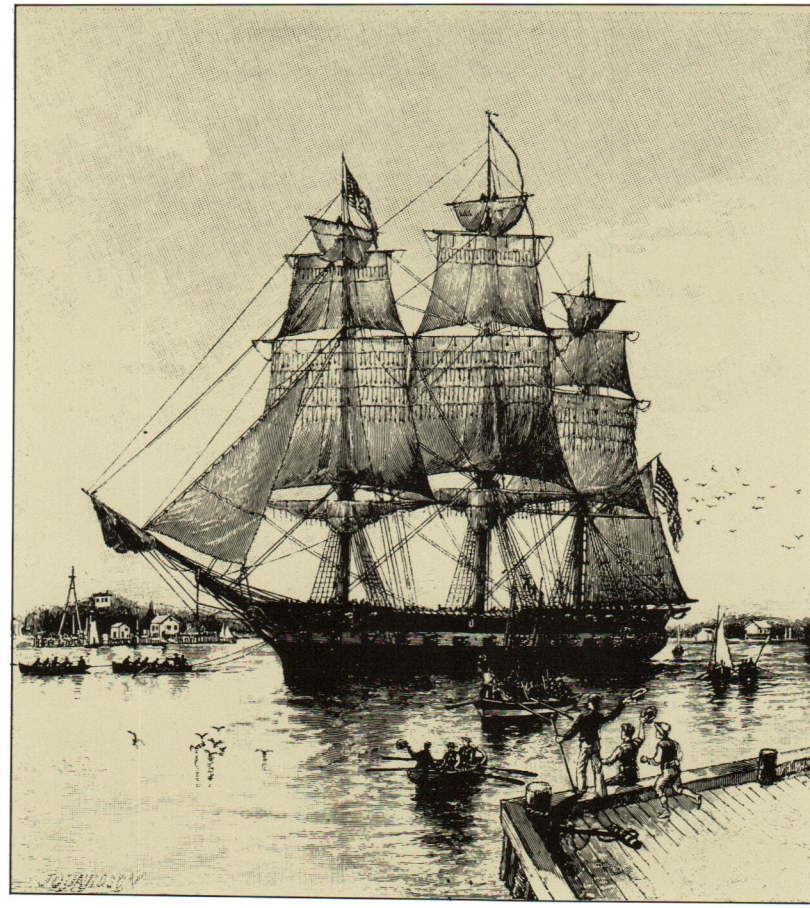
An era had passed.

THE CONSTITUTION

Why her sides must be made of iron!
(English sailor, 1813)

A fundamental rule of strategy is to confront weakness with strength whenever possible. You don't have to be the best, or the biggest, but simply the most powerful in any given battle. Might usually wins out over valor, though when might is forged with valor the results are the stuff of history. So it is in the history of one of the United States' greatest warships, the Constitution.

The story of the Constitution is more than the sum of her displacement and guns, though she was perhaps the most formidable "heavy frigate" of her time. Her crew was fortunate to serve under three of the most daring and adventurous captains of the time, Isaac Hull, William Bainbridge, and Charles Stewart, each of whom appreciated the Constitution's superior speed, maneuverability, and stunning weight of her 44-gun broadside. With these tools, Hull, Bainbridge, and Stewart humbled the mighty British fleet throughout the War of 1812, winning several brilliant battles with minimal loss of American lives. By 1813, British frigates were prohibited under any circumstances from engaging an American heavy



The U.S. Frigate Constitution

frigate unless they outnumbered it 2 to 1. Even these odds proved to be insufficient in the face of inspired American crews and their captains.

Actually, it's surprising that the Constitution had the opportunity to fight at all. President James Madison and the Secretary of the Navy, Paul Hamilton, were acutely aware that the entire American navy consisted of 17 seagoing vessels: three 44-gun frigates (the Constitution, the United States, and the President), three 36-gun frigates, one 32-gun light frigate, and two corvettes with 24 and 28 guns each, and eight sloops, brigs and schooners with 116 light guns. With 442 cannons, the Americans faced over 900 British men-of-war with 27,800 cannons, including several ships-of-the-line with over 100 guns each. Fortunately, Napoleon's thrusts kept all but 100 tied up in European waters, but these ships still mounted over seven times the armament of the entire Yankee fleet. The question of

strength seemed sealed; The Statesman of London boasted, "America certainly can not pretend to wage war with us; she has no navy to do it with!"

The original plan that Madison and Hamilton created called for every ship to be held in port for coastal defense. It seemed to be no more than common sense that the American navy would be swept from the seas if it ventured to show its colors outside of the harbors. The British certainly did not expect such audacity, and 100 ships were sent to blockade the harbors and starve the coastal trade. But in the early days of the war the problem of containing the French and Spanish fleets kept the British fleet away from the American shores, and merchantships and warships could come and go as they pleased. Two officers, William Bainbridge and Charles Stewart, represented the will of the naval officers of the line in their opposition to waiting for the blockade.

The 44-gun frigates were bigger, stronger and faster than than the British frigates. Given the long period of British naval superiority, the British were likely to be overconfident. The American cannons had sights, and used sheet-lead cartridges instead of the British flannel gun powder sacks, eliminating the need to swab out the cannons between shots to prevent premature detonation of the charge. The lead cartridges let the Yankees fire three rounds for every two from a British warship. The American riflemen were also superior shots to their British counterparts, and faster too: six marines loaded rifles for each marksman. Bainbridge and Stewart thought these advantages would allow the Americans to win eight of ten battles. While that number was the purest fiction, the arguments were enough to persuade Madison to authorize one sortie for each ship before it had to return to the harbors for the duration. It was a decision that more than a few Englishmen lived to regret.

Captain Isaac Hull cleaned the bottom of the Constitution's copper hull, and replaced the 42-pound carronades on the spar deck with the lighter, longer range 32-pound cannons which allowed more speed and the ability to strike the British fleet while outside the range of returning fire. Hull's obsession with speed led to a new copper bottom and additional ballast, making the Constitution as fast as any ship she was likely to face. These alterations certainly helped the Constitution escape seemingly inevitable capture on July 16, 1812.

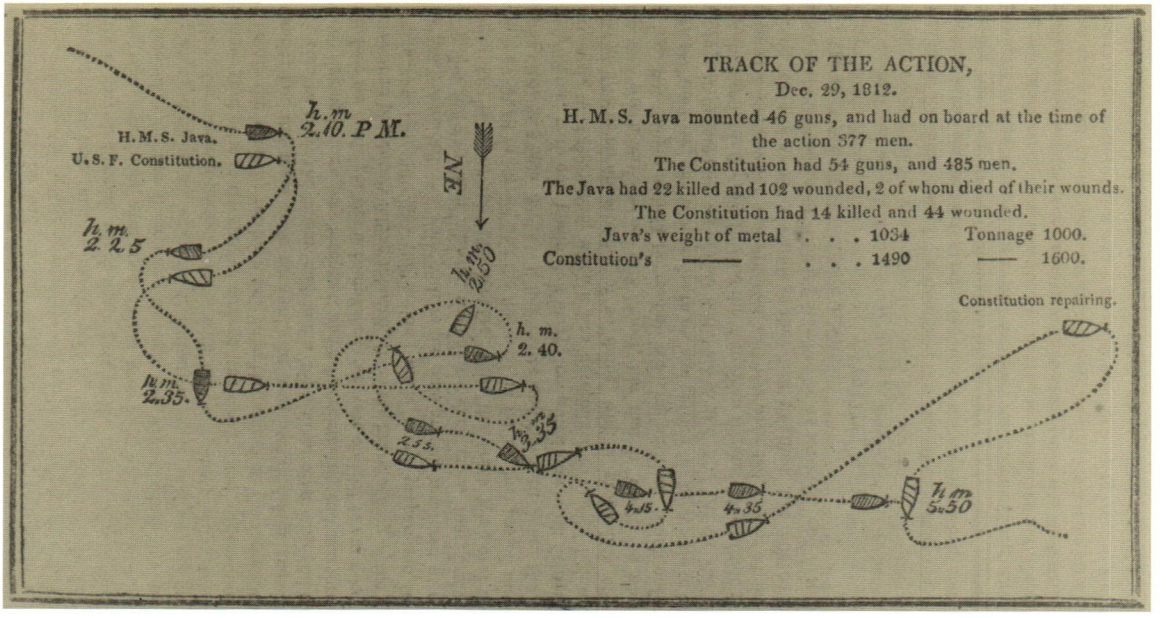
Just after taking to sea, the Constitution was attempting to find the rest of the American fleet. In the early afternoon, five sails were sighted; the American fleet had five ships. Hull was cautious though, and waited until after 10 p.m. to approach one ship split from the four others. When his secret recognition signal wasn't returned, Hull realized the danger of his situation and turned south to escape, with his five pursuers following. By

daybreak Hull found himself surrounded by the 64-gun Africa, the 38-gun frigates Shannon and Guerriere, the 32-gun Aeolius and the 36-gun frigate Belvidera, which had narrowly escaped the Constitution's sister ship, the President, less than a month before. The Britishers had also just captured the 14-gun brig Nautilus the day before, and here was one of the American's flagships delivered into their midst. Suddenly the wind fell off to nothing.

Hull launched the ship's boats and began to pull the frigate out of the trap. He also threw three 24 pounders and an 18 pounder overboard to lighten the load. The British, realizing their prey was crawling out of their jaws, followed suit for a three-hour "tortoise race." Hull wet his sails anticipating a breeze, and once it came the British were hard put to keep up with the frigate. As Hull gained a half mile on the pursuers, the wind died, and the British starting shooting with bow chasers. Lieutenant Charles Morris hit upon a wild scheme: the water was about 132 feet deep and all the ship's ropes could be made into a half-mile's anchor line. The ship's boats rowed out and the anchor was dropped, whereupon the ship's crew pulled the hawser from bow to stern. A second line was fashioned and a second anchor line was put into action. The Constitution pulled away rapidly, with the British quickly following suit when they saw their quarry once again escaping.

With the canvas wetted, the Constitution pumped out all its drinking water, 2335 gallons, and took advantage of every small breeze. Before nightfall on the 17th, Hull saw a summer squall heading for the ship; with the British faithfully copying each move, Hull bet on their faithfully copying another. He reefed his sails as though he was expecting a heavy blow and the British quickly followed suit. But the squall was light, as Hull had expected, and he quickly piled on the sails and sailed away from the British at 11 knots, too fast for them to catch up.

To escape was a great feat of seamanship but hardly a victory. However, the opportunity for victory came soon enough. The British commander of the chase chose to search for the American's five-ship fleet, but also mindful of the need to reprovision, he sent the Guerriere, a French 38-gun frigate captured off the Faroes earlier that month, to Halifax, as the Constitution sped toward Boston. Unfortunately, the Guerriere met the Constitution on its way out of Boston. In a battle at ranges of less than 30 yards, the Constitution's guns blasted the Guerriere, shattering the Guerriere's mainmast while repelling a boarding attempt. In 40 minutes the Constitution had undone over 100 years of British naval tradition. The Guerriere's crew of 302 had suffered 101 casualties. The stout oak of the Constitution's hull protected the Americans so well that only seven casualties were suffered and only seven men wounded. The Guerriere was so devastated that it was sunk on the spot.


TRACK OF THE ACTION,
Dec. 29, 1812.
H. M. S. Java mounted 46 guns, and had on board at the time of the action 377 men.
The Constitution had 54 guns, and 485 men.
The Java had 22 killed and 102 wounded, 2 of whom died of their wounds.
The Constitution had 14 killed and 44 wounded.
Java's weight of metal . . . 1034 Tonnage 1000.
Constitution's —— . . . 1490 —— 1600.
H.M.S. Java.
U.S.F. Constitution.
h. m. 2. 10. P M.
NE
h. m. 2. 2. 5
h. m. 2. 30
h. m. 2. 40.
h. m. 2. 35.
2. 55.
h. m. 3. 35
4. 15.
4. 35
h. m. 5. 50
Constitution repairing.

Official U.S. Navy photograph from the British Naval Chronical. Courtesy the U.S. Navy.

In a December sweep of the south Atlantic, the Constitution, under the command of William Bainbridge, met and sunk another British frigate of French origin, the Java; in another classic battle of naval strategy, the Java was pummeled to the point of surrender. The year of 1812 was not kind to the British Fleet's registers: having captured a brig and two sloops, 44 guns total, the British had lost three heavy frigates (two to the Constitution), and three other warships. The London Times summed it up: ". . . . any one who would have predicted such a result would have been treated as a madman or traitor. Yet to this moment, not a single American frigate has struck her flag." Perhaps the highest praise came by way of the Admiralty order that prohibited British frigates from engaging their American counterparts without a two-to-one advantage.

Over 500 vessels of all sizes were seized by the American sailors during the war, 65 by three privateers working out of New York alone. As late as 1814, the Constitution, under Charles Stewart, was in action defeating two British men of war: the 32-gun frigate Cyane and the 18-gun sloop Levant.

The Constitution was never defeated in battle.

TECHNICAL SPECIFICATIONS

Name:	The Constitution (nickname: Old Ironsides).
Built:	1794-1797, Hartt's Shipyard, Boston, Massachusetts.
Dimensions:	Length: 204 feet (nearly 50 feet longer than most British frigates). **Beam:** 43.5 feet (approximately three feet wider than British frigates). **Displacement:** 2,200 tons (25% more than typical British frigates).
Construction:	**Masts:** New England White Pine. Three masts, tallest: 189 feet. **Sails:** 42,000 square feet maximum.
Hull:	The physical dimensions don't tell the whole story. The shipwrights used oversized oak frames that normally would have been used in building a ship 50% larger than the Constitution. Each rib was set into the keel 1.5 inches apart. With the oak planking, the Constitution's walls were anywhere from 15 to 20 inches thick (The Constitution's nickname of Old Ironsides was earned in battle as cannon balls bounced off the formidable hull). The underwater hull was sheathed in copper plate to prevent wood borers from tunneling into the hull. Yet for all the "extra" weight, the Constitution could sail as fast as 14 knots and sails as close as six point of the wind, a supreme technical achievement. With her nimbleness, speed, long-range armament, and impervious hull the Constitution could pick her opponents, escape or fight on her terms.
Crew:	400, including officers and sailors (100 more than most British frigates).

Layout: Four decks and hold. Ballast compartment. All powder was stored under the waterline to protect against enemy shot.

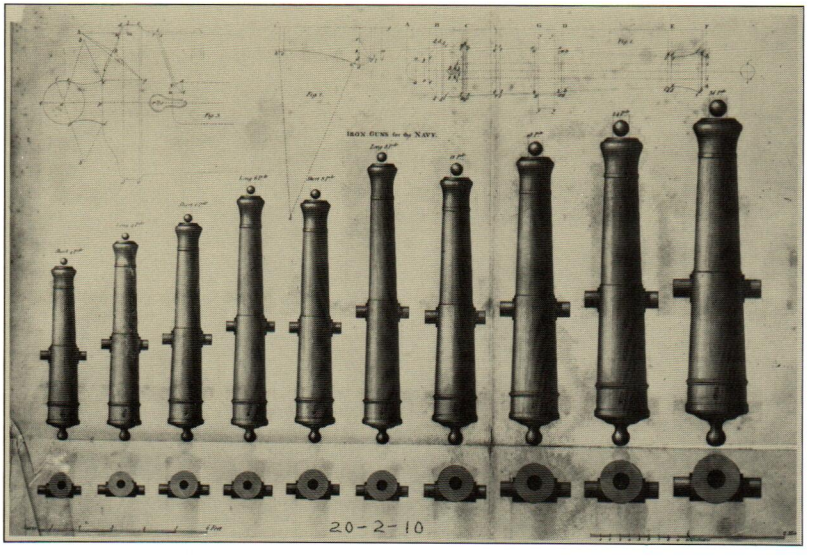
Armament: Twenty-four 42-pound carronades, thirty 24 pounders, one 18-pound bow chaser.

Different captains armed the Constitution differently. Isaac Hull discarded the carronades and replaced them with lighter 32-pound long range cannons.

Victories: August 19-20, 1812: Guerriere (captured and sunk due to damage).

December 29, 1812: H.M.S. Java (captured and sunk due to damage).

February 20, 1814: Cyane and Levant (both ships captured, Levant retaken March 11, 1814).



Iron Guns for the Navy, courtesy the National Archives.

SAILING TERMS

Aloof: To "stand aloof" was to stay above (to windward of) another vessel, at a distance but still in view. It was the superior position and later became an adjective for someone who felt superior to others.

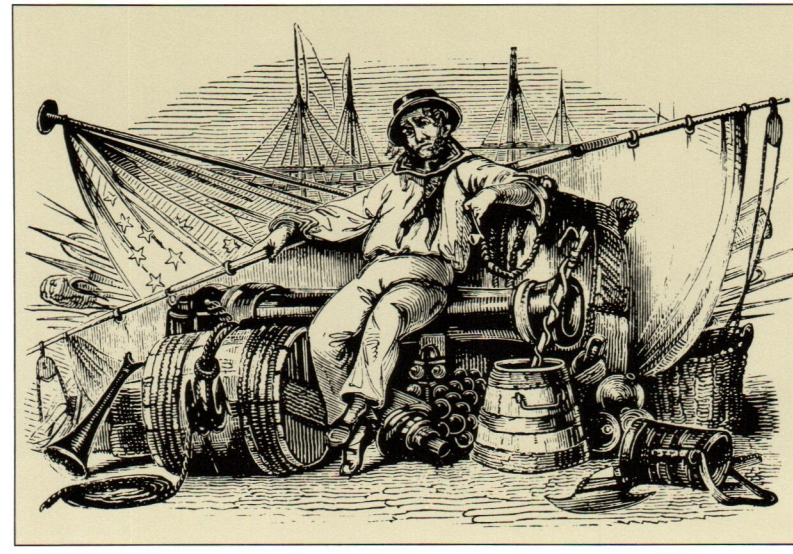
Bear Down: to sail rapidly downwind onto another ship. It was later in general use as a synonym for applying pressure.

Bow: the front of a ship.

Broadside: this can mean the side of the ship above the waterline or the firing of all guns on one side of a ship. It later was in general use as a vigorous attack.

Carronade: a powerful short-range cannon.

Center: the group of ships in a line that are between the van and the rear.



Crew: the sailors that work on a ship.

Cut and Run: to leave in a hurry by cutting the anchor cable and running with the wind.

Elevation: A cannon barrel could be set at any of four "elevations" by raising or lowering the front of the barrel. The highest elevation resulted in the longest shot.

Fleet: There are two fleets in The Ancient Art of War at Sea, the enemy's (black squadrons) and yours (white squadrons). The two fleets are divided into squadrons of up to 3 ships each.

Fly: retreat, to sail away from the enemy at best speed.

Forecastle: (pronounced foc'sl) the topdeck nearest the bow.

Grapple: When two ships came side by side, the sailors would throw grappling hooks and rope to try and tie the ships together. This occurred just before a boarding.

Grog: the eagerly awaited ration of rum issued twice a day to crews, it was 3 parts water to 1 part rum. If a sailor drank too much, he would become "groggy."

Gundeck: the topdeck behind the forecastle.

Hooker: an old and clumsy ship. Also, sailor slang for an old prostitute.

Impressment: a method of building crews quickly by sending press gangs to roam the streets of port towns and recruit men any way they could, often by force.

Larboard: the left side of the ship. Later called "Port."

Letting the Cat out of the Bag: removing the rawhide cat-o'-nine-tails from its red carrying bag just before flogging (whipping) a thief.

Line: the most often used battle formation; ships-of-the-line would often form a single-file "line" to present a solid wall of cannon fire to the enemy ships.

Poopdeck: the raised topdeck nearest the stern.

Pooped: what happened to the poor sailors caught standing on the poopdeck when a huge wave crashed down upon them.

Powder Monkeys: boys who would bring powder cartridges from the powder room to the cannons during battle.

Press Gangs: see Impressment.

Quarterdeck: the topdeck between the poopdeck and the gundeck.

Railing: the area of the quarterdeck nearest the hull on the side that is grappled with another ship.

Range: the distance a cannon can shoot a cannonball.

Rear: the last ⅓ of a line of ships.

Reef: a ridge of coral near the surface of the water.

Royal Navy: another term for the British Navy.

Scuttlebutt: the cask (scuttlebutt) that contained the ships daily water ration. Sailors would often swap rumors (scuttlebutt) during water breaks.

Soldier: fights with rifles during a boarding.

Son-of-a-Gun: a male child conceived on the gun deck.

Starboard: the right side of the ship

Stern: the back of a ship.

Squadron: a squadron in The Ancient Art of War at Sea is a group of between 1 and 3 ships that sail and battle as a team.

Van: the front ⅓ of a line of ships.

Weather Gauge: the ship or fleet that is between the wind and the enemy has the weather gauge. It is the superior position.

Book IV

APPENDIXES

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AMPAIGN DESCRIPTIONS

The Ancient Art of War at Sea contains eleven campaigns, each offering a unique challenge. (You can also create your own campaigns. See the section titled "Game Generator.")

A brief description of each campaign follows. Difficulty is rated on a scale of 1 to 10, 10 being the most difficult. Time is also on a scale of 1 to 10, 10 being the lengthiest. (Of course, if your opponent is much craftier than you, it might make a long game very short.) Time and difficulty will vary if you change the rules or the enemy leader.

THE BANE OF OLDAIN

The massive enemy fleet is setting sail in the north. Your fleet is harbored in the south. This may be the first campaign, but that doesn't mean it's going to be easy! A balanced offense and defense could be the key to victory.

Difficulty: 3
Time: 5

THE RACE FOR THE CROWN

You have 3 warships, the pirates have 26 warships. They are between you and your crown. What could be more fair!? The emphasis in this campaign is on strategy.

Difficulty: 2
Time: 3

RUNNING THE GAUNTLET

Again, you find yourself cut off from your crown by a huge enemy fleet. It will take an understanding of many aspects of the art of war to be standing victorious when this campaign is over!

Difficulty: 4
Time: 4

THE LAST CROWN

You've managed to corner your enemy at his crown. You've also managed to lose most of your once powerful fleet in the process. To clinch a victory will require a clever game of cat and mouse.

Difficulty: 5
Time: 6

ATTACK OF THE SUPERPOWER

Anticipate the enemy's strategy and strike where he is weakest.
(Sun Tzu)

Difficulty: 5
Time: 5

1588 THE SPANISH ARMADA

You command the British defense fleet that is standing between the Armada and its target, London (the white crown). To stop their advance, you will need to rapidly deploy your squadrons to where they will be most effective. During combat, take advantage of your technologically superior ships and cannons.

Difficulty: 7
Time: 10

1676 SICILY, 1798 THE NILE

You are thrust into the middle of a pair of famous battles that occurred a century apart. It will require strategic brilliance against the French on two fronts to avoid a visit to Davey Jones' Locker!

Difficulty: 6
Time: 5

1759 QUIBERON BAY

This time, you are placed in command of a French fleet that is being hard pressed by a strong British presence. To take a bold, offensive position or a more cautious defensive position, that is the question.

Difficulty: 4
Time: 4

1805 TRAFALGAR

This battle was Admiral Horatio Nelson's most brilliant victory. But, what if you were in charge of the British sea force instead of Nelson? Can you find the weak link in the French chain?

Difficulty: 8
Time: 8

1941 BISMARCK

What if the battle of the Bismarck had taken place 200 years earlier? You command the mighty Bismarck but the British are sending every available ship on a single mission: to sink you!

Difficulty: 8
Time: 4

YOU ONLY LIVE THRICE

We saved this one for last. Some players swear that this one is impossible to beat. They're wrong.

Difficulty: 10
Time: 9

ATA DISKS

A data disk is used when you want to make your own campaigns, play a campaign that you made, or resume a campaign that was previously saved. You can make as many data disks as you want. Each data disk can hold up to 11 new campaigns and 1 saved game.

PREPARING A DATA DISK

Before you start the game, it's a good idea to have a formatted blank disk available for use as a Data Disk. To prepare a Data Disk, simply format a blank disk using DOS. During the game, the program will tell you when you need to insert your Data Disk.

Make sure the Data Disk option in "Ye Olde Options Shoppe" is set properly. If you don't know how, read the "Ye Olde Options Shoppe" section of this manual.

MAKING A CAMPAIGN

Just follow the directions in the "Game Generator" section of this manual. The program will tell you when to use the Data Disk.

PLAYING A CAMPAIGN

To play a campaign that you created and saved on a Data Disk, select "Go to War" at the title page and then choose the last selection on the titles scroll, "(DATA DISK)."

If you are using the Data Disk and you want to play a campaign on your War Disk, choose the first selection "(WAR DISK)," on the data disk titles scroll.

SAVING A GAME IN PROGRESS

A game can be saved only on a Data Disk. If there already is a saved game on the Data Disk, that game will be erased when you save the new game.

You can only save a game in progress when the war map is on the screen and the pointer is not over a squad (any time "View" is on the command line).

When you are ready to save the game, hold the **Alt** key down and press **S**. The program will tell you when to insert your Data Disk. You will automatically exit the game after it is saved.

RESUMING A SAVED GAME

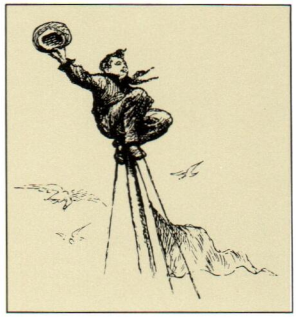
Select "Go to War" at the title page. Select the last title on the first scroll, "(Data Disk)." The program will tell you when to insert the Data Disk with the Saved Game.

When the program asks if you want to continue with the saved game, press **Y**.

SHIP NAMES

The following is a list of ship names that you can use in your own campaigns. Of course, you can create your own ship names, these are intended just to give you ideas.

Achille, Aeolus, Alexander, Alfred, Antelope, Aquilon, Ark Royal, Arrogant, Assurance.
Bahama, Bedford, Belvidera, Bizarre, Brilliant, Bristol, Britannia.
Caesar, Catherine, Centaur, Centurion, Charles, Cherub, Chesapeake, Conqueror, Constellation, Constitution, Coral Sea, Culloden.
Defence, Defiance, Destiny, Diamond, Dorsetshire, Dove, Dover, Dragon, Drake, Duchess, Duke.
Eagle, Elizabeth, Enterprise, Essex.
Fairfax, Falcon, Foresight, Formidable, French Ruby.
Glorieux, Glory, Golden Lion, Goliath, Greenwich, Guerrier.
Hampshire, Hare, Hercules, Heros, Hope, Hornet.
Impetuous, Infallible, Inflexible, Inpenetrable, Insurgente, Intrepide, Isis.
Java, Jersey.
Kent, Kingfisher.
Leopard, Leviathan, London, Lotus, Lydia.
Macedonian, Magnanime, Mars, Merlin, Mermaid, Minerva, Minotaur, Monarch, Monk, Moon, Mutine.
Nautilus, Neptune, Newcastle, Nonpareil.
Orient, Orion, Oxford.
Pearl, Pelican, Perturbable, Phoebe, Phoenix, Plutori, Plymouth, Portland, Prince, Princess, Principe, Provincien.
Rainbow, Red Lion, Redoubtable, Repulse, Resolution, Revenge, Rose, Royal Charles, Royal George, Royal Oak, Royal Prince, Royal Savage, Ruby.
San Josef, San Nicolas, Saratoga, Scipion, Scout, Scuttlebutt, Serapis, Shannon, Soleil Royal, Spartiate, Spy, St. Maria, Superbe, Swallowe, Swiftsure.
Terrible, Thesee, Theseus, Thunderer, Tonnant, Torbay, Triumph.
Ubiquitous, Unicorne, USS Dennis, USS Trippe.
Valiant, Vanguard, Victory, Ville de Paris.
Warspite, Wasp, White Bear, Windsor.
Yankee Pirate, York.
Zealous.



EFERENCE GLOSSARY

CAMPAIGN: A campaign is a series of military maneuvers that form a war. The Ancient Art of War at Sea comes with eleven separate campaigns, each set at a different location and time. Using the Game Generator you can design your own campaigns.

COMMAND OPTION: Command Options are used to move through the program and to give orders to your ships and squadrons. Command Options will change during the game but can usually be found on the bottom line of the screen. After Zooming, Command Options can also be found at the top of the screen. To use a Command Option, press the key that is indicated or, if no key is indicated, press the first letter of the command.

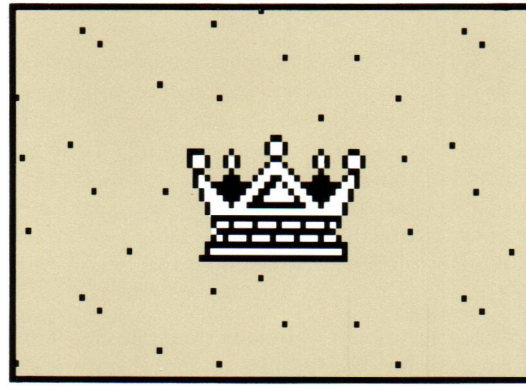
CONDITION: Cannonfire and low supplies will decrease a ship's condition.

A ship's condition is determined by her hull and sail damage. When the condition of the sails decrease, the ship's speed and maneuverability also will decrease. When a ship's sails are destroyed, the ship will be disabled. When the condition of a ship's hull deteriorates, cannons are damaged and firepower decreases. A ship with severe hull damage will sink.

To improve the condition of a ship, it must be repaired at a repair port. During a battle, some repairs can be made to a badly damaged ship by boarding with a stronger friendly ship.

Also see "INFO."

CROWN: A Crown represents the heart of a side's homeland.



A war can be won by anchoring a ship next to a Crown of the opposite color, but first, all enemy ships at the Crown must be defeated. A Crown provides supplies and repairs to ships of the same color. Crowns are supplied from inland and do not require merchantships.

DETACH: If a squadron contains more than one ship, and there are fewer than 40 squadrons on the map (including any enemy squadrons not shown), you can divide the squadron in two. Put the marker over the squadron. When "Detach" appears on the command line, press **D**.

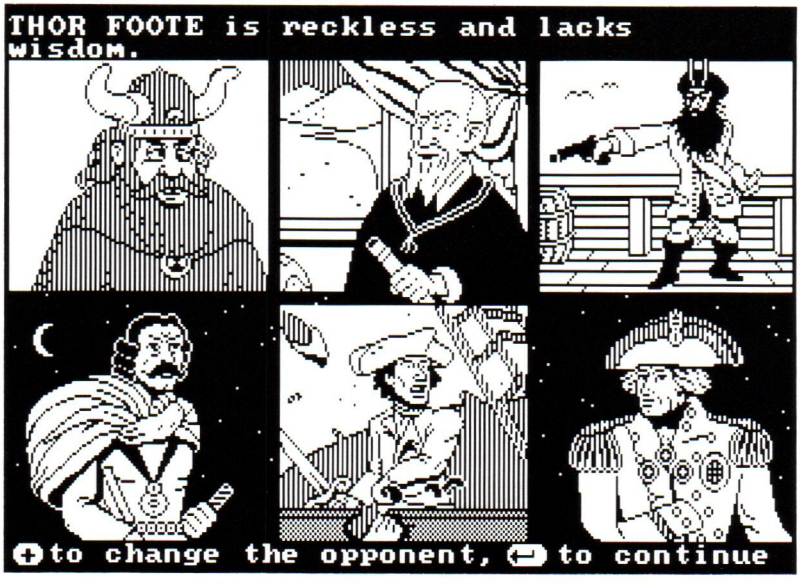
Use + or – to select a ship and then press **S** to switch it to the new squadron. When you are done, press **E**. The new squadron will appear just to the right of the original squadron. By typing **J** (Join), you can move ships back to the original squadron.

ENCOUNTER: If one of your squadrons comes close to an enemy squadron, an encounter will be reported, and both squadrons will turn into the shape of crossed sabres. An encounter means that the enemy squadron and one of your squadrons are preparing for battle. You can either take command of that squadron and lead it into battle, by Zooming, or let the ships fight without your help. If the two squadrons start flashing, it means they have started fighting without you. You can check the size of both squadrons while they are flashing to see who is winning, but you cannot take command after the fighting has started.

To adjust the amount of time between an encounter and the start of a battle, go to "Ye Olde Options Shoppe." With "fight delay" set to medium, you have about 30 seconds between an encounter and the start of a battle.

ENEMY: The enemy are the black squadrons and ships. The enemy are lead by one of six historical military minds, each with his own style of waging war.

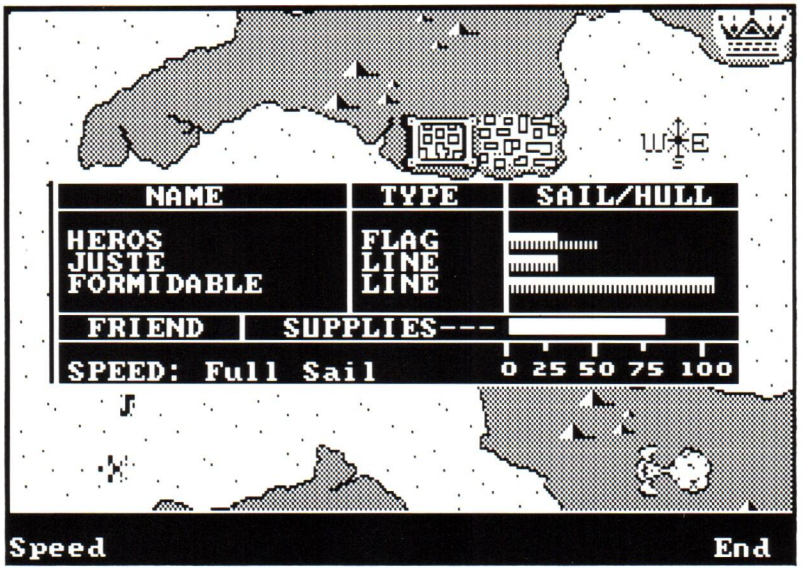
The mass tactics of the Duke of Medina Sidonia.
The aggressive attack of Blackbeard.
The formal tactics of Marten Tromp.
The determination of John Paul Jones.
The brilliance of Lord Admiral Nelson.
The unpredictability of Thor Foote.



FLAGSHIP: A flagship is a strong ship-of-the-line with an Admiral on board. It is the most powerful ship on the high seas. Sinking the last flagship on either side wins the campaign.

HELP LINE: The Help Line is just above the Command Line at the bottom of the screen. It appears when using certain commands to tell you what to do next.

INFO: To get information about a squadron, move the marker over it until you see "Info" on the command line. Then press **I**. If two or more squadrons are directly over each other on the map, you will get information on only one squadron.



Using the Info command, you can learn the name of the ships in the squadron, their type, condition and supplies. You can also adjust their sailing speed.

JOIN: If two squadrons are close enough, you can Join them (up to a maximum of 3 ships in a squadron). If "Join" is not shown at the bottom of the screen, you can use "Move" to bring the squadrons closer together.

Put the marker over the squadron. When "Join" appears on the command line, press **J**. Use **+** or **–** to select a ship and then press the **Space bar** to move it to the new squadron. When you are done, press **E**.

MARKER: The marker is represented by the white crosshairs on the screen. Use the arrow keys or joystick to move it. Place it over a squadron to get information, give orders or move the squadron. When the marker is over a squadron, you will hear a beep and the command line will change. It will beep once for every squadron under it, so if two or more squadrons are in the exact same location, you will hear more than one beep.

MERCHANTSHIP: Merchantships supply ports. Warships can intercept enemy merchantships, capturing their supplies and sinking them. Your warships can also get supplies by intercepting white merchantships. If the intercepting squadron's supplies are above 50%, the merchantship will have enough supplies left to continue on to its destination.

MESSAGES: During a campaign, your ships will sometimes report information to you. Messages will appear at the bottom of the screen just above the Help Line. Up to two messages can be shown on the screen at the same time. When a new message comes in, the previous message will

move down and the new message will take its place on top. To remove the messages on the screen, press **C** to Clear them.

Reports and sightings are given in terms of map location, not in terms of the squadron sending the report. For example, if one of your squadrons is in the northwest quadrant of the map, with an enemy to the south of it, the report will say "Enemy sighted in the northwest."

Some of the messages are:

Enemy Sighted: One of your squadrons has visual contact with an enemy squadron. It will also report the enemy squadron's location on the map. Occasionally, tired sailors will report a false sighting.

Encounter: Your squadron is preparing to fight another squadron. You have a short time after receiving this message to Zoom to the battle before the fighting starts if you want to command your ships individually.

Fighting: The two fighting squadrons will flash to show that a battle is in progress. You cannot Zoom in on a squadron while it is fighting.

Battle Won/Lost: The results of fighting will be given when you don't Zoom.

Flagships: The capture of a flagship is a major event. When a flagship is won or lost, it will will be reported.

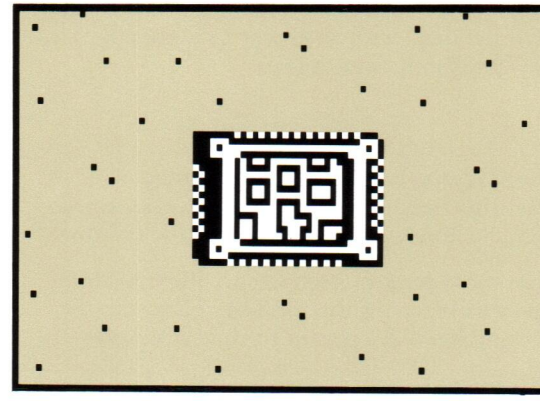
Lost in Rough Water: Rough water is a dangerous place for frigates to be.

Lost in Shallow Water: Shallow water is a dangerous place for ships-of-the-line and flagships.

MOVE: To move a squadron, place the marker over a friendly squadron until "Move" is shown on the command line, then press **M**. Now trace the route you want the squadron to take. When you've reached the end of the route, press **M** again. A white dot will appear there, marking the destination.

PRACTICE: To improve your skills as a tactical commander, move the marker over one of your squadrons and press **P**. You can then practice using the combat options without damaging your ships.

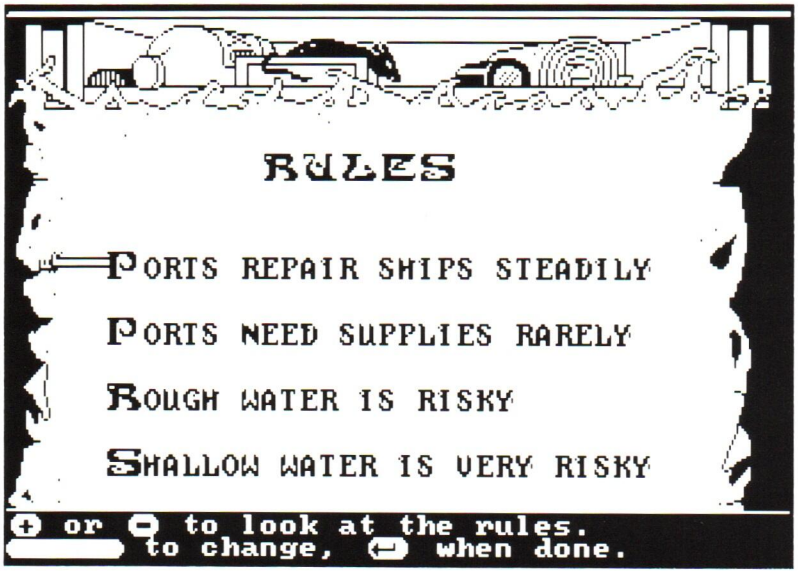
REPAIR PORT: A repair port will improve the condition (Sails/Hull) of any ship anchored in its harbor, provided the ship's supplies are greater than 20%.



Repair ports receive their supplies from merchantships. It takes approximately two merchantships to provide enough supplies for a badly damaged ship-of-the-line. When a port receives supplies, it will begin fixing any ship in its port. Naturally, it will take longer to receive repairs in a crowded port. When a port runs out of supplies, it will change colors and you will hear a tone (if the sound is on).

RETREAT: When you've "Zoomed" in on a battle, you can have your squadron retreat by sailing off the edge of the screen. A turning ship can disappear off the edge of the screen and then come back (if it doesn't stray too far off screen).

RULES: Some rules will change with each campaign. You will see the rules on the rules scroll before a campaign begins. Advanced players may wish to change the rules of a campaign for variety. Most rules apply to both you and the enemy, although some may be different for the enemy depending on who their leader is.

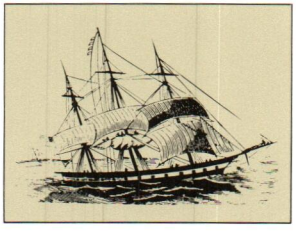

RULES
PORTS REPAIR SHIPS STEADILY
PORTS NEED SUPPLIES RARELY
ROUGH WATER IS RISKY
SHALLOW WATER IS VERY RISKY
or to look at the rules.
to change, when done.

Ports Repair Ships Slowly/Steadily/Briskly: determines how quickly the condition of a ship will rise when anchored at a repair port.

Ports Need Supplies Never/Rarely/Often: determines how often a port will need to be supplied by merchantships.

Rough Water is Mild/Risky/Very Risky: determines how dangerous it is for a frigate to sail through rough water.

Shallow Water is Safe/Risky/Very Risky: determines how dangerous it is for a flagship or ship-of-the-line to sail through shallow water.



You Have a Green/Average/Crack Crew: determines how fast a crew uses up its supplies. A green crew requires more supplies than a crack crew.

Visibility is Poor/Fair/Unlimited: determines the distance a squadron can be from an enemy squadron and still see it. Unlimited visibility means you will see all enemy squadrons at all times.

Wind Changes Never/Rarely/Often: determines how often a wind change will occur during the strategy portion of a campaign.

SIGHTINGS: When one of your squadrons gets close to an enemy squadron, it will report sighting the enemy. When the visibility is not set to unlimited, the squadron that is sighted will appear on the map. It will stay on the map until your squadron loses sight of it. The "rules" determine

the visibility.

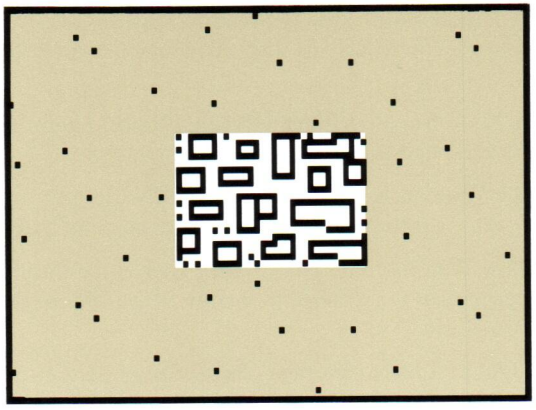
If a sighting is reported and you can't find an enemy squadron in that area, it is because your men lost sight of it quickly. Occasionally, sailors who are nervous and tired will overreact and report sighting enemy where there is none.

After sighting an enemy squadron, you can trail it, try to run from it or close in to fight.

Also see "MESSAGES."

SQUADRON: A squadron is a group of up to 3 warships. It is represented on the map by a white or black squadron symbol. The white squadrons are yours, the enemy squadrons are black. When a squadron is moving, it is represented by a small ship symbol that indicates its directional heading. There are also two other squadron symbols: The anchor symbol means the squadron is anchored, and the crossed sabre symbol means a battle is about to take place. Flashing sabres means the battle has already started.

SUPPLY PORT: A supply port will provide supplies to any ship anchored in its harbor.



Supply ports receive their supplies from merchantships. It takes approximately two merchantships to provide enough supplies for an empty ship-of-the-line. When a port receives supplies, it will gradually transfer them to any ships in port. Naturally, it will take longer to receive supplies in a crowded port. When a port runs out of supplies, it will change colors and you will hear a tone (if the sound is on).

SURRENDER: When "Surrender" is on the command line, you can surrender to the enemy Admiral by pressing S.

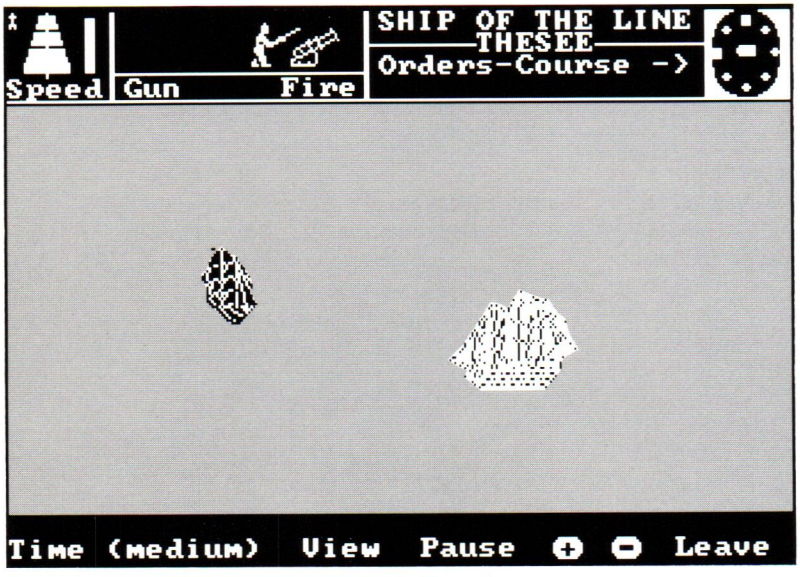
TIME: The Time option controls the speed of the game. Time can be varied during the game at your discretion.

During zoom, the "Faster" time setting uses a "variable" time speed. If all the ships in the battle are slowed down because of wind, damage or other factors, time will speed up to a superfast rate. This speeds up the pace of the game during slow periods.

ZOOM: After one of your squadrons reports an "Encounter," and before they report a "Battle," you can Zoom down to the scene of the battle and take command of the individual ships.

To Zoom, place the marker over one of the squadrons in the encounter and press **Z**. The amount of time between an "Encounter" and a "Battle" can be adjusted in "Ye Olde Option Shoppe."

If you don't Zoom in time, the squadrons will begin fighting on their own, and you won't be able to Zoom into that battle.



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